



26TH - 29TH JULY | BMICH
COLOMBO | SRI LANKA

19th Asia Pacific Congress of Paediatrics & 28th Scientific Congress of the Sri Lanka College of Paediatricians

*Redefining Paediatric Care -
Blending Equity, Excellence and Technology*

BOOK OF ABSTRACTS

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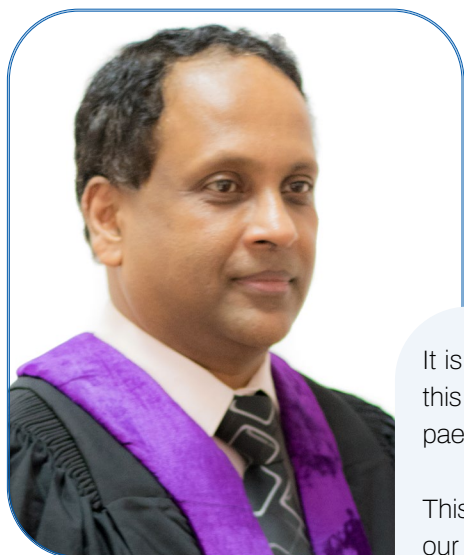
JULY 2026

BMICH, Colombo

SRI LANKA



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Welcome Message

It is with great pleasure that we welcome you to the APCP conference and present this collection of abstracts showcasing the outstanding scientific contributions of paediatricians across the globe.

This collection of abstracts reflects the diversity, innovation and dedication that define our international paediatric community. The research presented spans the breadth of child health, highlighting our shared commitment to improving the lives of children everywhere. Each abstract represents not only scientific inquiry but also the collective pursuit of excellence in paediatric care.

The APPA conference serves as a unique platform, bringing together experts from different countries, cultures, and healthcare systems to exchange knowledge, inspire new ideas and foster meaningful partnerships. By sharing our experiences and discoveries, we strengthen our ability to address the evolving challenges facing child health and to shape a healthier future for generations to come.

We extend our sincere appreciation to all Authors, reviewers, members of the scientific committee and conference organisers whose dedication and hard work have made this publication possible. We also thank every delegate for contributing to the vibrant academic discussions that make this conference a truly enriching experience.

We hope this abstract book serves not only as a record of the exceptional work presented at the conference but also as a source of inspiration for future research, innovation and collaboration. We wish you a stimulating and rewarding APPA conference and look forward to the advances that will emerge from the connections and ideas shared here.

Professor Asiri Abeyagunawardana

Congress Chair

19th Asia Pacific Congress of Paediatrics (APCP 2026)





Welcome Message

It is my privilege to welcome delegates, clinicians, and researchers to the joint 19th Asia Pacific Congress of Pediatrics and the 28th Annual Scientific Congress of the Sri Lanka College of Paediatricians. This abstract book attests to serve as a testament to scientific inquiry and our collective commitment to child health. This year represents a landmark for the Sri Lanka College of Paediatricians, with a record submission abstracts—the largest number in the College's history.

After a stringent peer-review process, more than 470 high-quality abstracts were selected for oral, rapid oral, and poster presentations. This substantial corpus reflects cutting-edge research from across the Asia-Pacific region and beyond, and underscores both the distinct regional healthcare challenges we face and the advances emerging from our scientific community.

We encourage ongoing scholarly and clinical investigation that yields measurable improvements in pediatric health. The Sri Lanka College of Paediatricians remains dedicated to providing forums such as this congress to disseminate research findings, foster critical discourse, and challenge prevailing paradigms.

I extend sincere appreciation to the Scientific Committee, the peer reviewers, and, above all, the Authors whose diligence and scholarship comprise this volume. May this compilation stimulate new research questions and catalyze collaborative efforts to advance child health.

Wishing all participants a productive and rewarding congress.

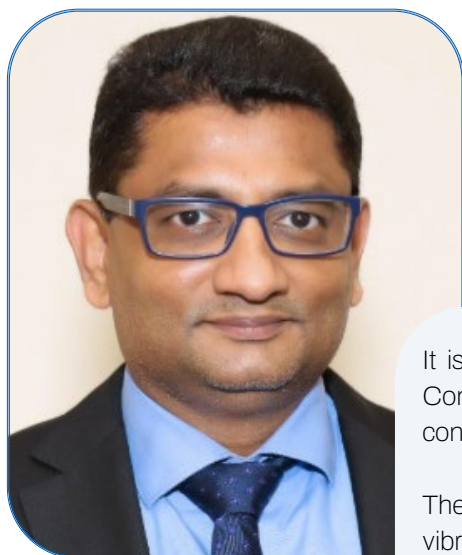
Professor Pujitha Wickramasinghe

Congress Co-Chair

19th Asia Pacific Congress of Paediatrics (APCP 2026)

President – Sri Lanka College of Paediatrician





Welcome Message

It is with great pleasure that I present this Abstract Book of the 19th Asia Pacific Congress of Paediatrics (APCP) 2026, which showcases the outstanding scientific contributions selected for presentation at this Congress.

The response to our call for abstracts has been truly encouraging, reflecting the vibrancy, diversity, and innovation of paediatric research and clinical practice across the Asia-Pacific region and beyond. Following a rigorous peer-review process, we are pleased to include 36 Oral Presentations, 125 Rapid Oral Presentations, and more than 300 Poster Presentations. These abstracts represent a broad spectrum of paediatric disciplines, encompassing cutting-edge research, clinical innovations, quality improvement initiatives, and experiences from diverse healthcare settings.

The high standard of submissions is a testament to the commitment of clinicians, researchers, educators, and trainees who continue to advance child health through scientific inquiry and collaboration. We are particularly pleased to see strong participation from many countries, fostering an environment where ideas can be shared, collaborations established, and future research inspired.

The Scientific Committee extends its sincere appreciation to all Authors who submitted their work and to the many reviewers who generously contributed their expertise and time to ensure a fair and robust evaluation process. Their dedication has been instrumental in maintaining the scientific quality of this Congress.

We hope that this Abstract Book will serve not only as a guide to the scientific sessions but also as a lasting record of the important work being undertaken to improve the health and well-being of children throughout our region. We encourage all delegates to actively participate in the presentations, engage in thoughtful discussions, and take advantage of the valuable opportunities for networking and collaboration that APCP 2026 provides.

We wish all presenters every success and hope that your participation in APCP 2026 will be professionally rewarding, intellectually stimulating, and personally memorable.

Professor Sachith Mettananda

Vice Chair – Scientific Cluster

19th Asia Pacific Congress of Paediatrics (APCP 2026)





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ABSTRACT ID: OP 01

Title	Uncovering Alpha-Gal Syndrome in Children: Clinical Insights from a Sri Lankan Tertiary Care Center
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ABSTRACT

Introduction: Alpha-gal syndrome (AGS) is an IgE-mediated-allergy resulting from sensitization to galactose- α -1,3-galactose following tick-exposure. Pediatric data from Sri Lanka remain limited.

Objectives: To describe the clinical spectrum of AGS in children at a tertiary-pediatric-center, identify factors associated with anaphylaxis, and contributors to delayed diagnosis.

Methods: We retrospectively analyzed children diagnosed with AGS between 1 August 2024-31 January 2026 at a tertiary pediatric- allergy-service. Diagnosis required compatible clinical history, alpha-gal-specific-IgE >0.1 kUA/L, positive skin-pricktesting, and symptom resolution with dietary-avoidance

Results: Sixty-four children were included; 60.9% were male, with a mean allergy onset age of 6.5 ± 4.3 years. Triggers included dairy (76.6%), red-meat (62.5%), gelatin (32.8%), MMR vaccine (6.3%), and fish eggs (1.5%); notably, 29.7% had never consumed red-meat. Anaphylaxis occurred in 73.4%. A family history of red-meat allergy (32.8%) and tick exposure (75%) were reported. Delayed reactions (>2 hours) were observed in 68.8%, and 84.4% reported inconsistent reactions to exposure. High alpha-gal-specific-IgE (≥ 3.5 KUA/L) was present in 75%. Exclusive gastrointestinal (4.7%) and exclusive respiratory (6.25%) manifestations occurred following milk. Anaphylaxis risk was significantly associated with asthma and atopy ($p=0.034$, $p=0.022$) and higher IgE-levels ($p=0.000$). Children with coexisting milk-allergy experienced >5 reactions prior to diagnosis ($p=0.001$), whereas those with isolated red-meat allergy were diagnosed earlier (≤ 2 reactions) ($p=0.004$). Avoidance of trigger/s eliminated recurrent reactions in all patients.

Conclusion: High-alpha-gal-specific-IgE levels, asthma and atopy were associated with anaphylaxis risk. Children with isolated red-meat-allergy were diagnosed earlier than those with secondary-milk-allergy, highlighting the importance of evaluating patients for milk and gelatin; even in previously tolerant or inconsistently symptomatic patients.





ABSTRACT ID: OP 02

Title	Machine Learning-based Identification of Focused Metabolic Signatures for Food Allergy Prediction: a prospective cohort study
Authors	Lei Wang ¹ , Ning Zhu ¹ , Weixi Zhang ¹
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ABSTRACT

Background: Food allergy (FA) is one of the most common chronic diseases in childhood, with a continuously increasing prevalence. However, there is a lack of non-invasive and accurate methods for early screening.

Methods: This study utilized a prospective birth cohort of 1579 mother-infant pairs, followed up until the infants were 12 months old to diagnose FA. Among these, 182 infants with complete fecal samples were included for multi-omics analysis, and the Binary Reflection Learning Optimizer (bREPLO) meta-heuristic algorithm was introduced for high-dimensional metabolomic feature screening. Further targeted tryptophan metabolomics validation was performed, and 7 machine learning models were systematically compared to construct a risk prediction model for FA.

Results: Children with FA exhibited gut microbiota dysbiosis. Untargeted metabolomics indicated that the tryptophan pathway was the significantly altered pathway. A stable metabolic panel centered on indolepyruvate (IPYA) was screened out by the bREPLO algorithm. Targeted metabolomics further verified that among 30 tryptophan metabolites, only the top three Indolelactic acid (ILA), L-5-Hydroxytryptophan (5-HTP), and IPYA accounted for a cumulative contribution of 53.8%, indicating a highly focused characteristic.

Conclusion: The metabolite-based decision tree model constructed in this study has the triple advantages of non-invasive sampling, clinical interpretability, and intervenable targets, providing a scientific tool with clinical translation potential for the early screening and precise diagnosis of FA.





ABSTRACT ID: OP 03

Title

Prevalence and predictors of self-reported drug allergy among children in Sri Lanka: Preliminary results from prospective multi-centre, cross-sectional, observational study

Authors

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ABSTRACT

Introduction: Drug allergy (DA) complicates clinical management and impacts outcomes. However, data on paediatric DA prevalence and predictors in low-and middle-income countries like Sri-Lanka remain scarce.

Objectives: To determine the prevalence and predictors of self-reported DA among children. Methods: Children (6-months to 14-years) were recruited from outpatient-departments at seven tertiary-care hospitals across five provinces. Data were collected via standardized electronic-proforma during one-to-one interviews. Multivariable logistic-regression was used to identify predictors.

Results: Among 4,011 children (55.4% male; 73.2% non-atopic), the prevalence of self-reported DA was 2.1% (n=84). Antibiotics were the most frequently implicated (n=37, 0.9%), followed by nonsteroidal- anti-inflammatory drugs and paracetamol. A family history of DAs was reported in 6.9%. Among the self-reported antibiotic-allergy (AA), most (78%, n=32) reported allergy to betalactams: amoxicillin (n=16), co-amoxiclav (n=4), cephalexin (n=3), and cefotaxime (n=3). Four reported allergies to two antibiotics. Reactions were reported after the first-dose in 70.7%, while 58.6% developed symptoms within two-hours. Commonest manifestations were erythema, pruritus, urticaria and angioedema. Anaphylaxis was reported among eight. Notably, no child had undergone confirmatory testing for AA. Multivariable-analysis showed increasing age tripled the risk of self-reported DA (OR=2.60, 95%CI:1.15-5.88), and a family history of DA doubled the risk (OR=1.94, 95%CI: 1.01-3.72), while not having atopy appeared protective (OR=0.57, 95%CI:0.36-0.89). Sex, ethnicity, and chronic illness were not significant.

Conclusion: Self-reported AA in Sri-Lanka (0.9%) is lower than in high-income countries (2.5–10%). However, the lack of confirmatory-testing highlights a critical diagnostic gap. Strengthening allergy-specialty services is essential to prevent unnecessary drug restrictions and improve pediatric antimicrobial-stewardship.





ABSTRACT ID: OP 04

Title

Total Gestational Weight Gain and Trimester-specific Weight Gain; Modifiable Determinants of Newborn Birthweight among Sri Lankan Mothers: a prospective cohort study.

Authors

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ABSTRACT

Introduction: Birthweight is considered as a predictor of an individual's long-term metabolic health. Gestational weight gain (GWG) is a modifiable factor that influences newborn weight. Impact of trimester-specific weight gain on birth weight is under reported.

Objectives: This study aimed to assess the effect of total and trimester-specific GWG on newborn weight.

Methods: A prospective study of 1537 pregnant mothers, recruited by convenient sampling technique from the antenatal clinic of Teaching Hospital Peradeniya was conducted with real time GWG assessments through pregnancy. Of them, 1060 mothers and their infants born at term without complications were selected. Multiple Linear Regression, Spearman Correlation, and Binary Logistic Regression were performed for the statistical analysis using SPSS version 27.

Results: Median GWG of the pregnant women was 9.50 (IQR- 7.00) kg while 11.2% and 55.4% had weight gains above and below the recommendation of the Institute of Medicine, respectively. A significant positive correlation was found between newborn weight and GWG ($r = 0.135$, $p < 0.05$). Mothers with inadequate GWG had higher odds of delivering low birth weight neonates (OR-1.55, $p < 0.05$). Occurrence of low-birth-weight births among high body mass index mothers was always related to GWG below the recommendation. The 2nd trimester weight gain had a significant positive correlation with newborn birth weight ($r = 0.098$, $p < 0.05$).

Conclusion: Inadequate GWG significantly contributes to LBW in Sri Lanka. Optimizing [VK1.1][MP1.2] GWG, particularly during the second trimester, and promoting healthy body mass index prior to conception could improve the birth outcomes.





ABSTRACT ID: OP 05

Title	Socio-demographic vulnerabilities and factors of premature romantic relationships among adolescent girls experiencing elopement-related statutory rape in Sri Lanka
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ABSTRACT

Background: Elopement behaviour of adolescent girls followed by statutory rape is a complex public health and child protection issue. This study aims to describe the socio-demographic vulnerabilities, household dynamics, and self-reported drivers of premature romantic relationships among adolescent survivors.

Methods: A retrospective descriptive study was conducted among 68 adolescent girls managed at the Teaching Hospital Ragama. Data were extracted from institutional records, and common reasons for initiating romantic relationships were obtained via a follow-up questionnaire.

Results: The mean age of participants was 16 years (SD = .74). 60.3% lived with both parents at the time of elopement; however, household dysfunction was high, with 60.3% experiencing domestic violence, 86.4% paternal alcohol use, and 30.3% paternal substance use. The primary sources of relationships were the neighbourhood (33.8%) and social media (27.9%). The mean perpetrator age was 21 years. Vaginal penetration occurred in 80.9% of cases, with video recording of sexual acts (19.1%) and intentional drugging (10.3%). The primary self-reported drivers of relationship initiation were the belief in safety (n = 47), solving problems on their own, and the desire for positive attention (n = 45). Peer pressure, the need for a close relationship and physical attraction were among the other common self-drivers.

Conclusion: Premature romantic relationships leading to elopement are strongly linked to "push factors" from dysfunctional domestic environments, leading the girls to seek emotional safety and validation externally. The high prevalence of social media-initiated relationships and household risk factors highlights the need for targeted digital safety education and community-based family rehabilitation programs.





ABSTRACT ID: OP 06

Title

Communication Device Use: Patterns and Behaviours among Grade 10-13 Secondary School Students in Sri Lanka following COVID 19 Pandemic

Authors

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ABSTRACT

Introduction: The use of digital communication devices among adolescents has shown a significant rise following COVID 19 pandemic.

Objective: Determine the behavioural and usage patterns of screen devices among secondary school students in Sri Lanka.

Method: A descriptive cross-sectional study was conducted (January-August 2025) in Colombo, Galle, Jaffna, Anuradhapura and Nuwara Eliya districts, using a self-administered questionnaire. Data analyzed with SPSS v25.

Results: All 1438 participants regularly used at least one communication device: mobile phones were the most preferred (96.7%) followed by laptops (42.1%), smart-watches (20.8%) and tablets (16.8%). Majority used smartphones (97.1%) but only 28.4% owned a phone. 58.1% had peak device usage between 6pm-12am, 43.4% spent ≥ 2 hours with devices.

Device usage was for academic work (85.5%) listening to music (75.0%), taking photos (70.6%), watching videos (60.0%), chatting (65.3%), and browsing social media (46.2%). Engagement of devices was to relieve boredom (74.5%), being alone (44.7%). commonly used in the bedroom (34.3%), during meals (32.5%), and while watching television (24.6%).

Communication platforms used were WhatsApp (96.5%), Snapchat (34.1%) and Instagram (21.9%).

Mean number of calls given and received were 5.07 and 5.73 respectively. 35.5% did software updates within 1-7 days. During sleep 19.5% kept phone closer, 16.1% carried charger/power bank. Three forth of the group attempted to reduce device usage.

Conclusions: All participants were regular users of smart devices. Despite significant use for academics, device engagement is largely driven by boredom and solitude. Future efforts should focus on helping students balance academic needs with healthier digital habits.





ABSTRACT ID: OP 07

Title	Risk factors for illicit substance abuse among adolescents in Sri Lanka: A case-control study
Authors	Kavinda Dayasiri ¹ , Malaka Samarasinghe ² , Gihan Gunarathna ¹ , Udara Sandakelum ³ , Indika Gawarammana ²
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ABSTRACT

Introduction: Illicit substance abuse among adolescents is an emerging public health concern in Sri Lanka. Evidence on independent risk factors, particularly among high-risk teenagers undergoing rehabilitation, remains limited.

Objectives: To identify independent social, familial, peer and school-related risk factors associated with adolescent illicit substance abuse.

Methods: A case-control study was conducted among adolescents aged 10–17 years. Cases (n=108) were admitted for inpatient rehabilitation at the Youth Drug Addiction Prevention, Treatment and Rehabilitation Centre, Kandy. Age- and sex-matched controls were recruited from the outpatient department of North Colombo Teaching Hospital, Ragama. Data were collected using a structured questionnaire. Multivariable logistic regression identified independent risk factors ($p < 0.05$).

Results: Peer-related factors showed the strongest associations. Peer substance use (adjusted OR 32.16; $p < 0.001$) and peer encouragement (adjusted OR 14.26; $p < 0.001$) were the most powerful predictors. Other independent risk factors included association with antisocial peer groups (adjusted OR 10.4), parental separation (adjusted OR 5.34), perceived school neglect (adjusted OR 3.14), problematic social media use (adjusted OR 2.52), and perceiving substance use as enhancing popularity (adjusted OR 2.44) (all $p \leq 0.004$). Nearly half (46.3%) reported prior selfharm-related thoughts.

Conclusions: Adolescent substance abuse in Sri Lanka is strongly influenced by peer dynamics, family disruption and psychosocial vulnerability. Prevention strategies should prioritise peerfocused interventions, family strengthening, school engagement and integrated mental health support."





ABSTRACT ID: OP 08

Title

From Bleed Control to Functional Independence: A 30-Month Prospective Evaluation of Emicizumab Prophylaxis in Hemophilia

Authors

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ABSTRACT

Background: Emicizumab prophylaxis has significantly improved bleed prevention in Hemophilia A through subcutaneous administration. However, real-world longitudinal data, especially from resource-constrained settings, remain limited.

Aim: To evaluate clinical and functional outcomes in 43 patients with Hemophilia A receiving Emicizumab prophylaxis, assessing changes in Annualized Bleeding Rate (ABR), target joints, Functional Independence Score in Hemophilia (FISH), Hemophilia Joint Health Score (HJHS), and EQ-VAS quality-of-life scores across varying treatment durations.

Methods: In this prospective observational study (July 2023–December 2025), 43 patients received Emicizumab at a modified maintenance dose of 1.5 mg/kg every two weeks. Clinical and functional parameters were recorded at baseline and follow-up. Patients were stratified by duration of prophylaxis for subgroup analysis.

Results: Emicizumab prophylaxis demonstrated a substantial reduction in bleeding rates across all groups. Overall ABR decreased from 18.5 to 0.44 (P value < 0.001). 100% reduction in target joint bleeds. Mean FISH increased from 23.84 to 30.7 (P value < 0.001) indicating enhanced functional independence. The HJHS improved from 17.5 to 1.7 (P value < 0.001). Quality of life improved significantly, with EQ-VAS scores rising from 45% to 91.1% (P value < 0.001).

Early bleed reduction was observed within 3 months, followed by progressive functional and joint health gains, with maximum benefit beyond 12 months. Six patients completed over 24 months of therapy without adverse events or compliance issues.

Conclusion: Low-dose Emicizumab prophylaxis demonstrated rapid, sustained improvements in bleeding control, joint health, functional independence, and quality of life. This regimen offers a cost-effective and sustainable long-term strategy in resource-limited settings.





ABSTRACT ID: OP 09

Title	Stem Cell Mobilisation and Collection Strategies for Autologous Gene Editing in Transfusion-Dependent β -Thalassaemia
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ABSTRACT

Introduction: Autologous gene editing offers a potential cure for transfusion-dependent β -thalassaemia (TDT), provided sufficient CD34⁺ haematopoietic stem/progenitor cells (HSPCs) can be safely mobilised and collected. TDT patients often present with factors affecting mobilisation efficiency, including iron overload and splenectomy.

Objective: To evaluate the feasibility, safety, and efficacy of CD34⁺ cell mobilisation and collection in TDT patients prior to gene editing therapy.

Methods: TDT patients underwent mobilisation with G-CSF $\pm$ plerixafor. Apheresis was initiated when peripheral blood CD34⁺ count reached threshold. Collection outcomes, adverse events, and impact of splenectomy were analysed.

Results: Fifty-four percent of patients achieved target CD34⁺ cell yield. One patient required a second mobilisation to reach target. Splenectomised patients showed higher peak CD34⁺ counts but required greater leucocyte expansion. Median CD34⁺ yield was $16.82 \times 10^6/\text{kg}$ after mean processed blood volume of 7823 mL. All patients required central venous access; no catheter-related infections or thrombotic events occurred. Mild to moderate citrate reactions were common but manageable with calcium supplementation. Grade ≥ 2 thrombocytopenia occurred in 5.26% of patients without bleeding events.

Conclusion: Autologous CD34⁺ cell mobilisation and collection are feasible and safe in TDT. Splenectomy may enhance mobilisation but necessitates intensified regimens. Second mobilisation is an effective rescue strategy. Standardised supportive care and vascular access management are essential for successful integration into gene editing pathways.





ABSTRACT ID: OP 10

Title	Psychosocial and contextual risk factors of adolescent deliberate poisoning: A multicentre case-control study in Sri Lanka
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ABSTRACT

Introduction: Deliberate self-poisoning is one of the most common methods of self-harm among adolescents worldwide and represents a significant public health concern in Sri Lanka. However, comprehensive evidence on psychosocial and contextual risk factors remains limited.

Objectives: To identify independent psychosocial, familial and school-related risk factors associated with deliberate self-poisoning among Sri Lankan adolescents.

Methods: A multicentre prospective case-control study was conducted over two years in selected tertiary care hospitals in Sri Lanka. Adolescents aged 10–17 years admitted with deliberate poisoning were recruited as cases, with age- and sex-matched controls selected from the same hospitals. Structured interviews assessed sociodemographic characteristics, psychiatric history, family environment and school-related factors. Conditional logistic regression was used to estimate adjusted odds ratios (AORs).

Results: A total of 326 case-control pairs (n=652) were included; 74.5% of cases were female and most were aged 15–17 years. Paracetamol (45.1%) and oleander (10.7%) were the most frequently ingested agents. In multivariable analysis, independent risk factors included personal history of psychiatric illness (AOR 2.76), previous self-injury (AOR 4.17), previous deliberate poisoning (AOR 4.02), non-heterosexual orientation (AOR 26.9), school dropout (AOR 4.01), exposure to home violence (AOR 8.93) and persistent feelings of depression (AOR 2.08). Female sex and older adolescent age were also overrepresented among cases.

Conclusions: Adolescent deliberate poisoning in Sri Lanka is strongly associated with psychiatric vulnerability, family adversity, identity-related distress and school disengagement. Strengthening adolescent-friendly mental health services, early school-based screening and targeted psychosocial interventions is urgently needed.





ABSTRACT ID: OP 11

Title	An Integrated Community-Based Nutrition Intervention for Children Aged 6–59 Months: A Six-Month Review of a Pilot Study
Authors	Gitanjali Sathiadas ¹ , S Yalini ¹ , S Kumaran ¹
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ABSTRACT

Background: Early childhood undernutrition remains a major public health issue, driven by poor diet diversity, inadequate hygiene, suboptimal caregiving, and household food insecurity. Objective was to assess the effectiveness of an integrated, community-based intervention led by peer group.

Methods: A family-centred, multicomponent intervention was conducted in the Pooneryn MOH area of Kilinochchi District, recruiting families with children aged 6–59 months through multistage cluster sampling and data collection via an interviewer-administered IT-base. The four-week intervention on nutrition, hygiene, parenting, financial literacy, and behaviour change and culinary skill was delivered by trained peer facilitators. Baseline details, anthropometry, HHS, HFIAS, dietary diversity, dietary recall were collected. Follow-ups were conducted fortnightly, with reassessments at 3 and 6 months. Ethical approval was obtained from the Faculty of Medicine, University of Jaffna (J/ERC/24/164/NDR/0331).

Results: A total of 154 (86.5%) completed 6-month follow-up. Mean child age was 25.4±11.6months. Post intervention Household hunger improved, HHS decreasing from 0.55±0.43 to 0.43±0.93, with little to no hunger rising 83.1% to 88.3%. HFIAS scores changed slightly from 3.11±4.5 to 3.37±4.98. SAM dropped from 10.4% to 1.3%, growth faltering from 60.4% to 27.9%, severe wasting declined from 5.2% to 1.3% and moderate stunting from 25.3% to 20.8%. Consumption of vitamin A-rich vegetables(48%-69%), eggs(52%-80%), and organ meat(8%-17%) increased, whereas fried foods(92%-88%), bakery items(60%-47%), and sweets(86%-36%) decreased. Correct handwashing rose from 64% to 82% .

Conclusion: Improvements are seen in child growth, diet, and hygiene at six months of intervention, supporting scale-up with longer-term evaluation





ABSTRACT ID: OP 12

Title

Dietary Diversity, Eating Behaviours and Food Security Among Preschool Children: Findings from the SUNRISE Sri Lanka Study

Authors

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ABSTRACT

Introduction: Early childhood nutrition is a critical determinant of lifelong health, influenced by a complex interplay of socioeconomic and behavioural factors. In transitioning economies like Sri Lanka, the relationship between dietary diversity, food security, and modern mealtime habits remains underexplored.

Objectives: To describe dietary diversity and eating behaviours among preschool children and examine associations with caregiver education, household food insecurity, and screen exposure during mealtimes.

Methods: A cross-sectional study of 1125 preschool children (mean age 52.1 ± 7.0 months; 50.1% boys) was conducted using the validated SUNRISE questionnaire. Minimum dietary diversity (MDD) was defined via 24-hour recall ($\geq 4/7$ food groups). Eating behaviours, caregiver education, food insecurity, and screen exposure during meals were recorded. Associations were analysed using chi-square tests.

Results: While 87.6% of children met MDD, 65.4% frequently consumed snacks and 29.1% sugary drinks. High mealtime screen exposure was reported in 43.4%. Failure to meet MDD was significantly higher among children of caregivers with low vs. university education (26.9% vs 3.6%, $p < 0.001$). Children from food-insecure households were twice as likely to fail MDD compared to food-secure households (20.7% vs 9.9%, $p < 0.001$). Frequent screen exposure during meals was associated with higher snack consumption (71.7% vs 60.6%, $p < 0.001$) and increased sugary drink intake (33.8% vs 25.7%, $p = 0.003$).

Conclusions: Although most preschool children achieved MDD, unhealthy eating behaviours were common and driven by socioeconomic disadvantages and digital distractions. Public health interventions must focus on "digital hygiene" during mealtimes while providing targeted nutritional support for food-insecure and low-education households.





ABSTRACT ID: OP 13

Title	Accelerating Remission in Pediatric IgA Vasculitis Nephritis with Huaiqihuang Granules: A Real-Word Study Combining Causal Inference and Machine Learning
Authors	Ying Tang ¹
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ABSTRACT

Background: IgA vasculitis nephritis (IgAVN) is the most common secondary glomerulonephritis in children. Persistent hematuria or proteinuria increases the risk of chronic kidney injury. Huaiqihuang (HQH) granules are widely used as an adjunctive therapy in Asia, yet high-quality real-world evidence based on causal inference is still limited.

Objective: To assess the efficacy of Huaiqihuang granules in shortening remission time in pediatric IgAVN, and to explore clinical features related to treatment response using machine learning.

Methods: This retrospective real-world study included 779 children with IgAVN, divided into isolated hematuria (n=154) and proteinuria (n=625) groups. Patients received HQH plus conventional therapy or conventional therapy alone. 1:1 propensity score matching was performed in each subgroup to balance baseline characteristics. Remission time was analyzed by Kaplan–Meier and Cox regression. Multivariable analysis identified independent predictors, and an XGBoost model was built to recognize responsive phenotypes.

Results: After matching, baseline characteristics were well balanced. HQH significantly shortened median remission time in both groups ($P < 0.05$). In multivariable Cox models, HQH was an independent protective factor for remission (hematuria HR≈2.6; proteinuria HR≈1.4; both $P < 0.05$). Older age correlated with delayed remission. The machine learning model showed good performance (AUC≈0.78), with younger age, higher baseline albumin, and absence of hypertension predicting better response.

Conclusion: Huaiqihuang granules combined with conventional therapy significantly accelerate remission in pediatric IgAVN, especially in non-nephrotic patients. Causal inference and machine learning provide complementary evidence for individualized treatment.





ABSTRACT ID: OP 14

Title	Safety and efficacy of intramuscular vitamin D in children with renal disease
Authors	Harshini Dharmawardane ¹
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ABSTRACT

Introduction: Children with vitamin D deficiency require treatment to prevent hypocalcaemia and bone deformity. Oral supplementation is generally recommended. However, adherence and timing could be a challenge with multiple medications in children with renal disease, prompting Intramuscular vitamin D (IMD) to be a practical alternative.

Objective: To evaluate the safety and efficacy of intramuscular vitamin D injections (IMD) in children with renal disease

Methodology: The retrospective longitudinal study included children attending Paediatric Nephrology Clinic at National Hospital, Galle, who received IMD between July,2024 to July,2025. Vitamin D levels were reassessed 4 months after injection.

Results: Eighty children (mean age 10.2 ± 4.1 years) received IMD; 49(61.3%) were male. Before injections 42.5% were deficient and 57.5% were insufficient. Post-injection, 86% achieved sufficient levels with no cases of deficiency or toxicity. Age and body mass index (BMI) were significant predictors of post level. A paired sample t-test showed a significant increase in levels from pre-injection ($M=50.7, SD=16.8$) to post-injection ($M=114.3, SD=34.5$); $r(79) = 14.8$, $p < .001$. The mean rise was 63.7 ± 38.4 nmol/L (range 4 to 186). This demonstrated a moderate negative correlation with BMI ($r(80) = .44$, $p < .01$) and baseline levels ($r(80) = .43$, $p < 0.01$). The raise was greater in base line deficient ($M=76$, $SD=43$) than insufficient ($M=54.5$, $SD=38.4$); Welch-t (78) =2.6, $p=0.01$. No hypercalcaemia or injection related complications were observed.

Conclusion: The varied response: greater increases in deficient than insufficient patients, produced a prompt correction of low levels while avoiding toxicity at higher levels, supporting IMD as a safe and effective option for children with renal disease.





ABSTRACT ID: OP 15

Title	Feeding and gastrointestinal problems in neurologically impaired children and implications on quality of life of the caregivers: Insight from a resource poor setting with global health implications
Authors	Dewaraje Mudiyansele Dheera Thejani Dewaraje ¹ , Shaman Rajindrajith ² , Wathsala Hathagoda ² , Dileepa Ediriweera ³
Affiliations	¹ Ministry of Health, Sri Lanka ² Faculty of Medicine, University of Colombo, Sri Lanka ³ Faculty of Medicine, University of Kelaniya, Sri Lanka

ABSTRACT

Objectives: To determine the prevalence and spectrum of feeding and gastrointestinal (GI) problems among neurologically impaired children, and to evaluate health-related quality of life (HRQoL) among their primary caregivers.

Study Design: A cross-sectional study conducted among 163 children aged 1 to 15 years with neurological impairment attending two tertiary centres in Sri Lanka. Data on demographic characteristics, neurological aetiology, comorbidities, feeding and GI problems, complications, investigations, and management strategies were collected through clinical records and caregiver's interview. Caregiver's HRQoL was assessed using the Short Form 36 (SF-36) questionnaire.

Results: Among participant children, 63.2% were male; cerebral palsy was the predominant neurological diagnosis (62.6%). Feeding and GI Problems were highly prevalent, including drooling (41.1%), constipation (31.3%), refusal to open mouth while feeding (21.5%), cough during feeding (18.4%) and spitting (17.8%). Failure to thrive (35.0%) and aspiration pneumonia (12.9%) were the most notable complications. Despite the burden of feeding difficulties, only 25.8% underwent formal swallowing assessment, although 76.7% received some form of speech therapy. Caregivers reported moderate impairment across multiple SF-36 domains, with pronounced limitations in physical and emotional role functioning, vitality, and general health perception.

Conclusions: Neurologically impaired children experience a substantial burden of feeding and GI problems, with associated nutritional and respiratory complications. Caregivers also face significant reductions in HRQoL. These findings underscore the need for comprehensive multidisciplinary care, including improved access to structured swallowing assessment and familycentred support to address both child feeding difficulties and the well-being of the carer.





ABSTRACT ID: OP 16

Title	Gut Microbiota–Derived Taurine Controls Early-Life Neutrophil Development via Jun Signaling in a Germ-Free Pig Model
Authors	Shuai Tan ¹ , Jingjing Tian ¹ , Huyun Tong ¹ , Li Li ¹ , Wuzheng Luo ¹ , Gaohui Zhu ¹
Affiliations	¹ Children's Hospital of Chongqing Medical University, China

ABSTRACT

Introduction: Early-life establishment of the gut microbiota is essential for host growth, development, and immune function. Owing to developmental limitations of mouse models, the mechanisms by which microbiota-derived metabolites regulate early immune maturation remain incompletely understood. Germ-free pigs, which closely resemble humans in physiology and immune development, provide a valuable model for studying childhood immunity.

Objectives: This study aimed to examine the role of gut microbiota in regulating early-life development and immune maturation using germ-free and microbiota-colonized pig models.

Methods: Germ-free pigs and conventionally raised controls were established to assess growth and neutrophil function. Single-cell RNA sequencing, single-cell ATAC sequencing, proteomics, post-translational modification proteomics, and metabolomics were integrated to analyze multiple organs and identify key regulatory pathways. Taurine supplementation and molecular approaches were used to evaluate its effects on Jun signaling and neutrophil development.

Results: Germ-free pigs showed marked growth retardation and impaired neutrophil development and function. Fecal microbiota transplantation partially restored these defects. Multi-omics analyses revealed reduced taurine levels in germ-free pigs, which were closely associated with immune-related pathways. Further experiments demonstrated that taurine promoted neutrophil maturation through activation of Jun signaling. Taurine supplementation significantly improved neutrophil dysfunction.





ABSTRACT ID: OP 17

Title	Empowering Navigation: Implementing a Nurse-Led Interdisciplinary Model for Children with Rare Diseases
Authors	Cui Cui ¹ , Qin Zhang ¹ , Xiaoqiong Wei ¹
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ABSTRACT

Introduction: Professionals with advanced expertise and coordination skills, such as Rare Disease Specialist Nurses (RDSNs), are recognized as pivotal in integrating medical services and optimizing patient care pathways.

Objectives: This study aims to systematically construct and evaluate an interdisciplinary collaborative care model led by pediatric rare disease specialist nurses, grounded in the Synergistic Nursing Theory and the American Association of Critical-Care Nurses (AACN) Healthy Work Environment Framework.

Methods: A prospective, single-center, pre- and post-intervention controlled study design was employed. The study was conducted at a national tertiary-level children's hospital in Chongqing. The core interventions led by the specialist nurses included: establishing a navigation and coordination center; conducting comprehensive assessments and developing individualized plans; providing standardized education and empowerment; enhancing family self-management capabilities; and facilitating resource linkage and seamless referrals.

Results: Post-implementation, the proportion of interdisciplinary admissions nearly doubled (from 32% to 58%, $P < 0.001$), and specialized nursing consultations increased by 75% ($P < 0.001$). RDSNs reported significant improvements in interdisciplinary collaboration and perceptions of a healthy work environment ($P < 0.001$). Importantly, this enhanced collaboration was achieved without an increase in adverse events ($P > 0.05$), confirming the model's safety.

Conclusions: This RDSN-led model enhanced team collaboration, resource utilization, and nurses' professional experience, offering a replicable framework for complex chronic care. This research provides a replicable practical example for optimizing interdisciplinary collaborative care for children with other complex chronic conditions.





ABSTRACT ID: OP 18

Title	Genetic Spectrum of Paediatric Wilson Disease in Sri Lanka: Whole-Exome Sequencing Reveals Recurrent and Novel ATP7b Variants in a Hepatic-Predominant Cohort
Authors	Padmapani Padeniya ¹ , Chamali Thanthiriwattha ² , Pamalee Herath ² , Navindu Sandumina ³ , Rohan Chaminda Siriwardana ² , Meranthi Fernando ²
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ABSTRACT

Introduction: Wilson Disease (WD) is an autosomal recessive disorder affecting liver and brain, caused by mutations in ATP7B gene.

Objectives: We aimed to evaluate the genetic and phenotypic characteristics of a cohort of SriLankan children, genetically confirmed as WD.

Methods: A retrospective review was conducted for genetically confirmed as WD (via whole exome sequencing) at the Colombo North Centre for Liver Diseases, Sri Lanka (2020–2025).

Results: A total of 22 children were genetically confirmed to have WD. Of them 14 (63%) were males. Median age was 12 years (range 1.5 - 16 years) Hepatic manifestations were present in all (22/22), including acute liver failure, chronic liver disease and transminitis. Neurological symptoms (8/22) included ataxia, tremors and psychiatric manifestations. Of the ATP7B variants: 11 were compound heterozygous (50%) and 9 were homozygous (41%). There were 2 (9%) with one mutation only, however fulfilling the Wilson diagnostic score. Recurrent pathogenic variants included p. Gly1061Glu, p. Arg969Gln, p.Leu1299Phe, p.Gly1341Ser, and p.Ala1003Val. Five novel variants were identified, including a frameshift mutation (p.Ser177fs), an in-frame insertion (ENST00000242839.8: p.Val456delinsAlaSerLeu), and 3 missense variants. Four variants of uncertain significance identified in the cohort showed strong clinical concordance. Consanguinity was documented in 6 (27.3 %) and 7 had a positive family history of WD. Severe hepatic phenotypes correlated with homozygous or compound heterozygous pathogenic variants. Liver transplantation had been performed in 4 (18%).

Conclusion: This first WES-based paediatric WD cohort from Sri Lanka highlights a hepaticpredominant phenotype. The family clustering emphasises the importance of sibling screening.





ABSTRACT ID: OP 19

Title	To Study the Prevalence and Risk Factors for Pulmonary Hypertension and Myocardial Dysfunction in Post-Pulmonary Tuberculosis Patients Aged 1–18 Years
Authors	Abirami Ravidaas ¹ , Amber Kumar ¹ , Shikha Malik ¹ , Shubham Yadav ¹
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ABSTRACT

AIM: To study the prevalence and risk factors for pulmonary hypertension and myocardial dysfunction in post-pulmonary tuberculosis patients aged 1–18 years.

Objectives:

PRIMARY: • To determine the prevalence of pulmonary hypertension in children with treated pulmonary tuberculosis.

SECONDARY: • To determine the prevalence of myocardial dysfunction.

• To assess risk factors associated with pulmonary hypertension in post-TB patients.

Methods: This single-center cross-sectional observational study was conducted in the Department of Pediatrics, AIIMS Bhopal. Fifty children and adolescents (1–18 years) who had completed anti-tubercular therapy for pulmonary TB within the previous year were enrolled (time-bound sample).

Inclusion Criteria: Treated pulmonary TB patients aged 1–18 years. Exclusion criteria: Structural heart disease, chronic lung disease other than TB, extra pulmonary TB, systemic illnesses associated with PH (e.g., HIV, sickle cell disease).

Results: A total of 50 patients were evaluated. Pulmonary hypertension was identified in 40% of participants. Among these, 90% had mild pulmonary arterial hypertension (PAH) and 10% had moderate PAH. This pilot pediatric study demonstrates a notably high prevalence of PH in post-PTB patients. Existing literature has limited data on post-TB PH, particularly in children, and often focuses on adults with multiple comorbidities.

Conclusion: Pulmonary tuberculosis may represent a major underlying cause of pulmonary hypertension in high-burden populations. The community impact of post-TB PH is likely substantial but remains under recognized. Large-scale studies are needed to better define prevalence and risk factors. Echocardiography serves as an effective tool for screening and follow-up evaluation of pulmonary hypertension in this population.





ABSTRACT ID: OP 20

Title	Optimizing Operability in Congenital Heart Disease with Severe Acute Malnutrition: The Role of Decongestive Therapy
Authors	Amber Kumar ¹ , Shikha Malik ¹ , Kundavaram Rajkumar ² , Girish C Bhatt ¹ , Pavithra P ¹
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ABSTRACT

Background: Children with severe acute malnutrition (SAM) frequently present with complex comorbidities that limit the effectiveness of nutritional rehabilitation.

Aim: To evaluate the association between optimization of decongestive therapy and shortterm weight change in children with CHD and SAM, and to explore its implications for nutritional assessment and surgical preparedness.

Methods: This single-centre prospective observational study was conducted in a tertiary-care SAM treatment unit between 2022 and 2024. Children ≤ 5 years of age with WHO-defined SAM and echocardiographically confirmed CHD were enrolled. All children received standard nutritional rehabilitation. Decongestive therapy was initiated or optimized based on clinical and echocardiographic evidence of congestive cardiac failure. Weight change following clinical decongestion was recorded. Statistical analysis focused on within-subject comparisons before and after optimization of therapy.

Results: Of 412 SAM admissions, 98 children (23.8%) had CHD. Among 86 children with increased pulmonary blood flow physiology, decongestive therapy was clinically indicated in 68, but only 48 were receiving any form of decongestion at admission. Following initiation or optimization of appropriate decongestive therapy, 48 of 68 children (70.0%) demonstrated a sustained weight increase of >5 g/kg/day for at least three consecutive days, while 19 showed static weight and one experienced weight loss. Paired analysis showed a statistically significant increase in postdecongestion weight ($p < 0.001$), with a large effect size.

Conclusion: Optimization of decongestive therapy in children with CHD and SAM is associated with weight gain. Integrating early cardiac optimization into SAM management protocols may allow more accurate nutritional assessment and facilitate timely surgical referral.





ABSTRACT ID: OP 21

Title	Development and Validation of an Interpretable Prediction Model for IVIG-Resistant Kawasaki Disease: A Multicenter Prospective Cohort Study
Authors	Shuhui Wang ¹ , Zhiyuan Liu ¹ , Yidan Zhang ¹ , Haitao Lv ¹
Affiliations	¹ Children's Hospital of Soochow, China

ABSTRACT

Introduction: The early identification and prediction of intravenous immunoglobulin (IVIG)- resistant Kawasaki disease (KD) patients remain essential for mitigating the incidence of coronary artery complications.

Objectives: This research aimed to construct and validate an interpretable prediction model for IVIG-resistant KD using machine learning (ML) approaches, convert it into an intuitive software application and explore the pathogenic contributors to IVIG-resistant in KD.

Methods: Twelve ML algorithms were developed using 33 clinical variables (available within 24h) from 3,023 KD patients at Children's Hospital of Soochow University (2020–2024). Models were evaluated via AUC and interpreted using SHAP. External validation was performed on 1,626 patients from Anhui Provincial Children's Hospital, Affiliated Xuzhou Children's Hospital, and Jiangsu Province (Suqian) Hospital.

Results: Among the twelve ML algorithms, the extra trees (ET) model exhibited superior discriminative capacity. Upon dimensionality reduction based on the ranked importance of features, an interpretable ET model incorporating eight variables was finalized. It achieved AUC values of 0.865 in internal validation, 0.810 in the Anhui cohort (n = 654), 0.744 in the Xuzhou cohort (n = 546), and 0.785 in the Suqian cohort (n=408). Furthermore, the model has been implemented as an accessible web-based application, enhancing its feasibility in clinical settings.

Conclusions: This investigation established a reliable and interpretable ML model capable of predicting IVIG-resistant KD with high accuracy. The interpretation of machine learning techniques by adopting the SHAP method has potential value in helping to start preventive intervention for children with IVIG-resistant KD patients at an early stage.





ABSTRACT ID: OP 22

Title	Performance of an AI prediction tool for severity of coronary artery lesions in Kawasaki disease: A multicenter study
Authors	Shuhui Wang ¹ , Zhiyuan Liu ¹ , Yidan Zhang ¹ , Haitao Lv ¹
Affiliations	¹ Children's Hospital of Soochow, China

ABSTRACT

Introduction: Coronary artery lesions (CALs) represent the most severe complication of Kawasaki disease (KD). Existing prognostic tools mainly assess overall coronary artery involvement and lack the ability to identify different grades of CAL at an early stage, especially in terms of bedside prediction tools based on artificial intelligence. (AI).

Objectives: This study aimed to establish and externally validate an AI-driven bedside model capable of predicting varying degrees of CALs in children with KD.

Methods: A stacking model integrating 11 base learners was developed using 2,696 KD cases from Children's Hospital of Soochow University (Sept 2020–Sept 2024), split 4:1 for training/internal validation. The model was evaluated via accuracy, precision, recall, F1-score, and AUC, and validated externally across three independent hospitals. SHAP values were used to interpret feature contributions.

Results: Thirty-eight predictive variables were identified and analyzed. Among the tested algorithms, ExtraTrees, CatBoost, and AdaBoost achieved the highest AUCs and MCCs for normal, mild, moderate, and severe dilation, respectively, indicating consistent discriminative capability across CAL categories with AUCs of 0.819, 0.788, 0.798, and 0.704. SHAP analysis quantified global feature importance and enabled individualized interpretation of model outputs. Based on these variables, an intuitive bedside tool was constructed to estimate the risk of CAL with varying severity in children with KD (<https://wszx133-predict.streamlit.app/>).

Conclusions: This study establishes the first interpretable ML framework for differentiating KD CAL severity using routine data. Featuring strong multi-center generalizability and a webbased platform for real-time predictions, it enhances early risk recognition to potentially reduce coronary complications.





ABSTRACT ID: OP 23

Title	ELABELA targets mitochondria to modulate heart development
Authors	Zhikang Xu ¹ , Jian Wang ¹ , Qingjie Wang ¹ , Zhikang Xu ¹ , Shuang Zhou ¹ , Alex F. Chen ¹ , Kun Sun ¹ , Kun Sun ¹
Affiliations	¹ Xinhua Hospital Affiliated to Shanghai Jiaotong University School of Medicine, China

ABSTRACT

Background: Congenital heart disease (CHD) is a leading cause of neonatal morbidity and mortality, whose underlying pathogenesis remains largely unclear, and lacks reliable biomarkers or therapeutic targets during pregnancy. This study aimed to explore the role of the peptide ELABELA (ELA) in the development of fetal CHD and evaluate its potential as a biomarker and therapeutic target.

Methods: ELA levels were analyzed in human heart with CHD and plasma from pregnancies affected by fetal CHD using quantitative PCR, immunofluorescent staining, and enzyme immunoassays. Mouse models with cardiac-specific ELA deletion were utilized to investigate the impact of ELA on cardiac development. Single-cell RNA sequencing and mitochondrial function assay were conducted to investigate downstream mechanisms. Exogenous ELA was administered to evaluate its therapeutic effects in mouse models. And its potential role to screen for fetal CHD during pregnancy was explored in large cohort studies using ELISA.

Results: ELA levels are significantly reduced in human fetal cardiac tissues with CHD and in maternal plasma during pregnancies with fetal CHD. In mice, ELA deletion in cardiac progenitor cells disrupted mitochondrial function, and induced mitochondrial swelling by disrupting the APJ-AKT-BCL2/BAX axis, leading to cardiac malformations. Administration of exogenous ELA notably reduced both CHD severity and incidence in mice.

Conclusions: This study identifies ELA as a crucial regulator of fetal cardiac development and mitochondrial homeostasis, while exogenous ELA administration demonstrates therapeutic potential. These findings underscore the value of ELA as a novel biomarker and therapeutic target for the prevention and management of fetal CHD during gestation.





ABSTRACT ID: OP 24

Title	Tiotropium versus Montelukast as add on therapy to Inhaled corticosteroids in children with poorly controlled asthma: a randomized controlled trial
Authors	Rashmi Ranjan Das ¹ , Soma Sengupta ¹ , Krishna Mohan Gulla ¹ , Biswa Mohan Padhy ¹
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ABSTRACT

Introduction: In children with poorly controlled asthma, Montelukast is a common add-on drug to inhaled corticosteroids (ICS). Tiotropium has been tested in adults, however, no study has compared Tiotropium with Montelukast in children.

Objectives: To compare the efficacy and safety of ICS plus Montelukast with ICS plus Tiotropium in children (6-14 years age) with poorly controlled asthma (GINA 2022) at the end of 3 and 6 months, and to find whether Tiotropium is non-inferior to Montelukast.

Methods: In this open label parallel RCT, all the details (demography, clinical, spirometry, c- ACT/ACT score, quality of life (QoL) score, and adverse events) were recorded. The intervention arm received Tiotropium MDI (9 µg, OD), and the control arm Montelukast tablet (age appropriate dose, OD). The sample size was 152 (non-inferiority margin of 10%).

Results: 152 children (Montelukast - 77, Tiotropium - 75) were enrolled. The mean c-ACT/ACT score at 3 months (primary outcome) was as follows: Montelukast group, 19.6 (95% CI: 18.87 to 20.51), and Tiotropium group, 18.32 (95% CI: 17.8 to 19.45) (P = 0.064). The lower 95% CI of Tiotropium group did not cross the 10% non-inferiority margin (score of 17.64). FEV1 improvement was greater with Montelukast at 3 months (P = 0.032), but was similar at 6 months (P = 0.09). QoL score, exacerbation frequency, rescue therapy, and systemic steroid use were comparable. One child in the Montelukast group developed neuro-psychiatric symptoms. No other significant adverse events were noted.

Conclusion: Tiotropium is non-inferior to Montelukast in children (6-14 years age) with poorly controlled asthma.





ABSTRACT ID: OP 25

Title

Epidemiological Shifts and Clinical Characteristics of Childhood Chlamydia pneumoniae Pneumonia in Beijing Before, During, and After Public Health Interventions (2017–2025)

Authors

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ABSTRACT

Objective: To explore the impact of public health interventions (strict non-pharmaceutical measures and subsequent relaxation) on the epidemiological trends and clinical characteristics of childhood Chlamydia pneumoniae (CP) pneumonia in Beijing, and provide evidence for precise prevention and treatment.

Methods: A retrospective cohort study enrolled 331 hospitalized children with laboratory-confirmed CP pneumonia (January 2017–September 2025) from the Capital Center for Children's Health, stratified into three groups by intervention intensity. Demographic and clinical data were collected and analyzed.

Results: Among the 331 patients (male:female=1.75:1), the post-intervention group (Jan–Sep 2025) showed a significant surge, accounting for 7.91% of community-acquired pneumonia (CAP) cases. The primary affected age shifted from 0–3 years (pre-intervention: 60.4%; during intervention: 75.6%) to 6–18 years (post-intervention: 90.1%; $H=172.24$, $P<0.001$). Compared with the pre-intervention group, the post-intervention group had significantly higher rates of coinfection (45.4% vs. 6.7%), CT consolidation (56.6% vs. 26.1%), subpleural masses (34.9% vs. 13.4%), and bronchoscopy utilization (34.9% vs. 3.7%) (all $P<0.001$). Inflammatory (CRP) and myocardial injury (CK-MB) markers were elevated ($P<0.05$), and macrolide poor response rate increased from 3.7% to 34.9% ($\chi^2=19.8$, $P<0.001$).

Conclusions: Public health interventions induced a "suppression-rebound" effect in childhood CP pneumonia in Beijing, with incidence shifting to school-aged children. Post-intervention cases were more severe and less responsive to macrolides, highlighting the need for targeted school-based prevention and optimized antibiotic regimens.





ABSTRACT ID: OP 26

Title	Factor Structure, Validity and Reliability of the Nomophobia Questionnaire (NMP-Q) among Sri Lankan adolescent school children
Authors	Pujitha Wickramasinghe ¹ , Dulani Samaranayake ² , Vinuri Vidanapathirana ¹ , Sayeeshan Thiruchelvanathan ¹ , Umani Senavirathne ¹ , Hasitha Liyanarachchi ¹
Affiliations	¹ Department of Paediatrics, University of Colombo, Sri Lanka ² Department of Community Medicine, University of Colombo, Sri Lanka

ABSTRACT

Introduction: Nomophobia, the fear of lack of access to electronic communication devices, is an emerging psychosocial problem among youth. Nomophobia Questionnaire(NMP-Q) is the most widely used instrument to assess nomophobia, however, there is limited evidence on its validity in South Asia.

Objective: To translate, culturally-adapt and validate NMP-Q for the use among Sri Lankan adolescents.

Methods: NMP-Q was translated from English into Sinhala, using standard protocols. Content validity of the self-administered questionnaire, was assessed by a panel of experts and it was validated on a sample of 181 Sinhala-speaking grade 10-12 students. Confirmatory Factor Analysis (CFA), Multi-trait Scaling Analysis (MSA) and convergent validity using known group comparison were conducted. Cronbach's alpha coefficient was used to assess reliability.

Results: 51.9% were males. Mean age was 15.9 years. Everyone used one or more electronic device with 177(97.8%) using mobile phones and 81 (44.8%) owned one. CFA showed that the original four-factor model (not being able to communicate, losing connectedness, not being able to access information, and giving up convenience) showed best fit to the data (RMSEA 0.089, SRMR 0.069, GFI 0.82, AGFI 0.77 and NNFI, CFI and IFI >0.9), and MSA supported it. Significant difference in certain behaviours were shown by NMP-Q scores; uses only when necessary(64.6vs73.2, p=0.024), keep nearby when sleeping(65.5vs76.6, p=0.005), carry a charger(79.9vs66.1, p=0.004), tried to reduce device use(66.1vs78.5, p=0.007). Cronbach's alpha>0.75.

Conclusions: This study provides evidence that the Sinhala version of the NMP-Q is a valid and reliable instrument to assess nomophobia in Sri Lankan school-going adolescents.





ABSTRACT ID: OP 27

Title	Quality of life and associated factors among adolescent schoolchildren in Galle district, Sri Lanka: A school-based cross-sectional study
Authors	Ponarasa Arachchige Ruwanthi Ishara Kulathunga ¹ , Pinnaduwege Vijitha De Silva ¹ , Champa Jayalakshmi Wijesinghe ¹
Affiliations	¹ Department of Community Medicine, Faculty of Medicine, University of Ruhuna, Sri Lanka

ABSTRACT

Introduction: Quality of life (QoL) is a multidimensional measure of adolescent well-being encompassing physical, psychological, social and environmental domains. Understanding factors associated with QoL is essential for informing pediatric and school health interventions. However, district-level evidence from Sri Lanka remains limited.

Objectives: This study was conducted to assess quality of life and its associated factors among adolescent schoolchildren in Galle district, Sri Lanka.

Methodology: A school-based cross-sectional study was conducted among 876 adolescent schoolchildren aged 16-19 years selected using multistage cluster sampling. Quality of life was assessed using the validated, Sinhala version of World Health Organization Quality of Life-Brief questionnaire. Data on sleep duration, physical activity and social support were collected using a judgmentally validated, self-developed questionnaire. Independent sample t-test was used to compare mean overall QoL scores between groups.

Results: Mean age (SD) was 16.27 (0.58) years. The mean general health score was 7.67 ± 1.46 . Domain-specific mean scores were: Physical 27.81 ± 3.68 , Psychological 22.21 ± 3.60 , Social Relationships 10.86 ± 1.66 , and Environmental 29.62 ± 4.56 . Adolescents with inadequate sleep, low physical activity levels and lack of social support demonstrated significantly lower overall QoL scores ($p < 0.05$). There was no significant difference in mean QoL score between males and females.

Conclusions: Psychosocial and lifestyle factors are associated with adolescent quality of life. Targeted interventions focusing on sleep hygiene, physical activity promotion and strengthening social support systems should be integrated into adolescent school health services to enhance adolescent quality of life.





ABSTRACT ID: OP 28

Title

Cardiometabolic Risk Factors Among Childhood Cancer Survivors in India: A Cross-Sectional Report from a Tertiary Care Centre

Authors

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ABSTRACT

Purpose: Childhood cancer survivors (CCS) are at increased risk of long-term metabolic complications, yet data from low- and middle-income countries are scarce. This study aimed to estimate the prevalence of obesity, central obesity, and dyslipidaemia among CCS in India and to identify clinical predictors of adverse metabolic outcomes.

Methods: This was a cross-sectional analysis of CCS enrolled in a structured survivorship program at a publicly funded tertiary cancer centre in North India. Survivors diagnosed at ≤ 21 years of age and aged ≥ 5 years at enrolment were included. Anthropometric and lipid parameters were analysed, and multivariable logistic regression was used to identify predictors of metabolic abnormalities.

Results: Out of 965 survivors evaluated (median age 16 years; 75.2% male), overweight and obesity were present in 15.9% and 18.2%, respectively, central obesity was observed in 46.1%. Central obesity affected 25.8% pediatric and 74.4% adult survivors. Among survivors with complete lipid profiles ($n=292$), dyslipidaemia was detected in 73.6%. Adult survivors had higher odds of overweight/obesity (adjusted odds ratio [aOR] 2.28), central obesity (aOR 8.7), and dyslipidaemia (aOR 2.62) compared with pediatric survivors. Female survivors were more likely to have central obesity (aOR 1.97) and dyslipidaemia (aOR 2.07). Notably, 31% of survivors with normal or low BMI had central obesity.

Conclusion: Metabolic abnormalities were highly prevalent among CCS in India, particularly among adults and females. The marked age-related increase in central obesity highlights the limitations of BMI-based screening. Integration of routine metabolic surveillance into long-term and primary care follow-up may mitigate future cardiometabolic risk.





ABSTRACT ID: OP 29

Title

Implementing family-centred care in two level III Neonatal Intensive Care Units in Sri Lanka: Lessons from a pilot study

Authors

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ABSTRACT

Introduction: Family-centred care (FCC) improves neonatal outcomes and parental wellbeing but is not implemented in Sri Lankan Neonatal Intensive Care Units (NICUs). High maternal psychological morbidity and limited maternal involvement in two tertiary NICUs highlighted the urgent need to introduce FCC.

Objectives: To evaluate staff perceptions of the acceptability, appropriateness and feasibility of five interventions: empowering parents through education, routine maternal depression screening using the Edinburgh Postnatal Depression Scale (EPDS), promoting maternal participation in neonatal care, conducting family meetings before discharge, and implementing sibling visits.

Methods: A multi-phase mixed-methods study was conducted. Culturally adapted FCC interventions were co-designed and implemented following staff training. Staff perceptions were assessed using a validated self-administered questionnaire. Qualitative interviews explored barriers to implementation.

Results: Sixty-six of 85 staff responded (39.4% doctors, 60.6 % nurses), with over half having ≥5 years of NICU experience. More than 75% rated all interventions as acceptable. Over 70% considered parental education, EPDS screening, maternal participation, and family meetings before discharge appropriate, while 61% rated sibling visits appropriate. EPDS screening and family meetings before discharge were viewed as highly feasible (>75%), while other interventions were perceived as feasible by 55–62%. Key barriers included staff burnout, limited FCC training, and inadequate infrastructure.

Conclusions: FCC interventions were viewed as acceptable and appropriate despite challenges. Low-cost strategies such as EPDS screening and discharge meetings can be readily implemented, while interventions requiring additional staff time or improvements in infrastructure may face feasibility constraints. Comprehensive and ongoing staff training is essential for the effective implementation.





ABSTRACT ID: OP 30

Title

Maternal BMI and Gestational Weight Gain; Early Predictors Of Newborn Adiposity

Authors

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ABSTRACT

Introduction: Excess newborn adiposity is a risk factor for childhood obesity and noncommunicable diseases. Identifying infants with increased adiposity and modifiable risk factors are crucial to implement preventive strategies at primary as well as primordial levels.

Objectives: To assess the impact of GWG and maternal pre-pregnancy BMI on neonatal adiposity.

Methods: Skinfold thickness was measured in 208 term newborns whose mothers were recruited and followed up at the antenatal clinic, Teaching Hospital Peradeniya. An interviewer-administered questionnaire was used for data collection. Newborn birth weight (NBW) and SFT of triceps (Tr), subscapular (Sc), and suprailiac (Si) SFT were measured. Central adiposity was calculated by addition of Si and Sc SFT. Total SFT was calculated by addition of all the SFT measurements. Spearman correlation, Multiple Linear Regression, Kruskal Wallis test and Mann Whitney U test were performed using SPSS Version 27.

Results: High preconceptual BMI was found in 37.5%, while 12.0% had low BMI. GWG above and below the recommendation was seen in 13.5% and 53.8% respectively. Pre-pregnancy BMI positively correlated with all the types of SFT ($p < 0.05$). Maternal obesity resulted in higher newborn central and total adiposity ($p < 0.05$). Only, the GWG and neonatal gender predicted the adiposity at birth ($p < 0.05$), where female neonates and neonates of mothers with excess GWG, showed a significantly higher central and total adiposity ($p < 0.05$).

Conclusion: Maternal BMI and GWG are important determinants of neonatal adiposity and SFT measurement is a feasible method in determining newborn fat mass.





ABSTRACT ID: OP 31

Title

Are ADP-derived international fat mass references applicable to Sri Lankan newborn infants

Authors

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ABSTRACT

Introduction: Higher adiposity in early life plays a pivotal role in the later development of obesity and non-communicable disease. Skin fold thickness (SFT) is a simple, cheap and non-invasive method of measuring adiposity. SFT-derived equations are commonly used in calculating fat mass. However, Air Displacement Plethysmography (ADP) remains the gold standard of fat mass estimation which is not readily available in clinical set-up. The alignment of SFT -derived fat mass with reference standards of ADP-derived fat mass remains uncertain.

Objectives: To evaluate the alignment of estimated infant fat mass from SFT-derived equations relative to published ADP-based Lambda-Mu-Sigma (LMS) reference standards.

Methods: In this prospective cohort study, suprailiac SFT of 203 infants were measured by the Harpenden Skinfold Caliper at birth. SFT-derived fat mass was estimated by the Catalano equation. Fat mass Z-scores were calculated using age and gender- specific LMS parameters of ADP based fat mass reference data. The Wilcoxon signed-rank test was performed to determine whether the median Z-score significantly differed from the reference median.

Results: The median SFT-derived fat mass and the median Z score were 1.15 kg and 4.05, respectively. All the infants depicted a positive fat mass Z-scores relative to the ADP reference standards. The median Z-scores were significantly higher than the reference median ($p < 0.05$), indicating a systematic elevation in SFT-derived fat mass compared to ADP-based reference values.

Conclusion: The systematic elevation in adiposity estimates of SFT derived infant fat mass highlights methodological or population-related differences when applying SFT-derived equations against ADP-based reference data.





ABSTRACT ID: OP 32

Title	Disentangling the Effects of BMI and Metabolic Dysregulation on Cardiac Remodeling across the Life Course: A Multi-Cohort Study
Authors	Bo Wang ¹ , Du Bowen ¹ , Wang Jian ¹ , Sun Kun ¹
Affiliations	¹ Xinhua hospital affiliated to Shanghai Jiao Tong University School of Medicine, China

ABSTRACT

Introduction: Obesity and metabolic dysregulation drive cardiac remodeling, yet their distinct life-course impacts on specific structural and functional parameters remain poorly defined.

Objectives: To disentangle the independent and synergistic effects of body mass index (BMI) and metabolic score (MetScore) on cardiac structure and function across the life course.

Methods: This study utilized data from 3 prospective cohorts, including Shanghai Birth Cohort (SBC, age 7, 1,391 participants), Avon Longitudinal Study of Parents and Children (ALSPAC, age 17.5, 941 participants) and UK Biobank (UKB, age 40-60, 74,032 participants). Multivariable regression, one-sample Mendelian randomization (MR), metabolome-wide association studies (MWAS), and structural equation modeling (SEM) were employed to assess associations, causality, and mechanistic pathways.

Results: Across the life course, BMI associated more strongly with structural indices, whereas MetScore was more prominently linked to diastolic function; neither associated with systolic function. These divergent impacts were corroborated by one-sample MR. MWAS revealed that MetScore could influence diastolic function via lipoprotein alterations (e.g., average diameter for HDL particles, proportion mediated: 13.59%) starting in adolescence and persisting into adulthood. Finally, SEM delineated two relatively independent yet intersecting pathways: BMI primarily drives structural alterations via hemodynamic load, while MetScore impairs diastolic function through lipidomic signatures.

Conclusions: BMI and metabolic dysregulation exert distinct and complementary influences on cardiac remodeling from childhood. BMI primarily drives structural alterations via hemodynamic load, whereas metabolic risk specifically targets diastolic function through lipidomic pathways. These independent pathways necessitate phenotype-tailored strategies for cardiovascular prevention across the life course.





ABSTRACT ID: OP 33

Title	Cyber-Related Violence and Exploitation Among Grade 10 Students in Jaffna District: Prevalence, Risk Factors, and Awareness
Authors	Gitanjali Sathiadas ¹ , Dhanan Vijayarathnam ¹ , Vyeshnave Karunainathan ¹
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ABSTRACT

Introduction: Cyber Related Violence and Exploitation refers to the exploitation of children via digital platforms through the use of internet.

Objectives: Were to assess the prevalence of cyber-related violence among Grade 10 students in Jaffna, their knowledge of it and its prevention, and associated sociodemographic and personal factors.

Methods: Stratified proportionate cluster sampling was used to select participants and data were collected using translated, validated questionnaire from Social Policy Analysis and Research Centre. Analysis was done using SPSS v20. Ethical approval was obtained (J/ERC/25/170/NDR/0342).

Results: A total of 740 students were recruited and the prevalence of cyber-related violence was 13.92%. Students correctly identified specific forms of cyber violence, including sending indecent messages(80.4%), sharing inappropriate videos or images(79.3%), online sharing of harmful content(77%), cyberbullying(76.7%), and cyber extortion(78.4%). The risk was higher among students who had multiple social media accounts ($\chi^2=8.22$, $p=0.004$), accessed the internet at a younger age ($\chi^2=7.88$, $p=0.019$), and used the internet outside their homes ($\chi^2=8.07$, $p=0.005$) had constant access to the internet ($\chi^2=12.56$, $p=0.003$), using real profile photos ($\chi^2=4.44$, $p=0.035$), real names ($\chi^2=3.66$, $p=0.050$), and sharing relationship status ($\chi^2=7.73$, $p=0.005$). Majority (84.7%) were willing to report victimization, only 2.6% knew all the reporting methods.

Conclusion: Cyber-related violence is common among Grade 10 students. Despite good awareness of its forms, knowledge on prevention, especially reporting, is limited, highlighting the need for targeted digital safety education.





ABSTRACT ID: OP 34

Title	Prevalence of Nomophobia and its associated factors among Secondary School Students in Grade 10-13 in Sri Lanka following COVID-19 Pandemic
Authors	Rathnayake Mudiyanseelage Chamali Jayamini Rathnayake ¹ , Dulani Samaranayake ² , Vinishu Vidanapathirana ¹ , Umani Senavirathne ¹ , Hasitha Liyanarachchi ¹ , Pushpika Jayawardena ³ , Jagath Ranasinghe ⁴ , Geeta Sathiyadas ⁵ , Nayani Suraweera ⁶ , Mayumi Kumarage ¹ , Tharushi Lakshini ¹ , Afrin Jamaldeen ¹ , Pujitha Wickramasinghe ¹
Affiliations	¹ Department of Paediatrics, University of Colombo, Sri Lanka ² Department of Community Medicine, University of Colombo, Sri Lanka ³ Department of Paediatrics, University of Ruhuna, Sri Lanka ⁴ Department of Paediatrics, Base Hospital Nuwara Eliya, Sri Lanka ⁵ Department of Paediatrics, University of Jaffna, Sri Lanka ⁶ Department of Paediatrics, Rajarata University, Sri Lanka

ABSTRACT

Introduction: Nomophobia has risen in Sri Lanka with increased smartphone use among adolescents after COVID 19.

Objectives: Determine the prevalence and associated factors of nomophobia among Grade 10–13 students in post pandemic Sri Lanka.

Methods: A Descriptive cross sectional study (January–August 2025) of school children in Colombo, Galle, Jaffna, Anuradhapura and Nuwara Eliya districts was conducted using a self administered questionnaire, including the Mobile Phone Involvement Questionnaire and the Nomophobia Questionnaire (Yildirim & Correia, 2015). Data analyzed with SPSS v25.

Results: Of 1,438 participants (61.5% female), all regularly used electronic communication devices. Mobile phones were primary in 96.7%. Other devices: laptops 42.1%, smart-watches 20.8%, tablets 16.8%. Peak use occurred 18:00–24:00 for 58.1%. Nomophobia prevalence (97.9%): mild 51.1%, moderate 42.3%, severe 4.5%. Across the surveyed districts, nomophobia prevalence was highest in Galle (99.5%) followed by Anuradhapura (99%) and Colombo (98.5%) while lowest in Jaffna (92.9%). Prevalence of severe nomophobia: Nuwara Eliya 7.6%, Anuradhapura 7.1%, Colombo 4.6%, Galle 3.8%, Jaffna 2.1%. Higher nomophobia was associated with government schools ($p=0.039$), Sinhala medium ($p<0.001$), lower maternal and paternal education levels ($p<0.001$), and greater screen time ($p<0.001$). Significant associations were observed between nomophobia severity and keeping devices nearby during sleep ($p<0.001$), carrying charging accessories at all times ($p<0.001$), past attempts to reduce device usage ($p=0.027$), the perception that life would be more comfortable without mobile devices ($p=0.01$) and the inability to restrict mobile phone use to essential tasks ($p=0.008$).

Conclusions: Nomophobia is highly prevalent among secondary students in Sri Lanka; urgent, targeted interventions to promote digital well-being are needed.





ABSTRACT ID: OP 35

Title	The association between perceived social support and psychosocial difficulties, revictimization in adolescent girls who have faced child sexual abuse following romantic relationships in Gampaha district, Sri Lanka
Authors	Hashan Pathiraja ¹ , Shobhavi Randeny ¹ , Pavithra Godamunne ¹ , Sajanathi Perera ² , Manisha Niranji ² , Nadeeshani Ariyawansha ²
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ABSTRACT

Background: Culture of elopement with romantic partners in adolescent girls with subsequent child sexual abuse (CSA) is a significant public health concern in low- and middle-income settings, often leading to profound psychosocial distress and a high risk of revictimization. This study investigated the relationship between perceived social support, psychosocial difficulties, and re-elopement among adolescent survivors in Sri Lanka.

Methods: A cross-sectional analytical study was conducted at "Lama Piyasa," Child Protection Unit, Teaching Hospital Ragama. Data were collected from 68 adolescent girls (ages 14–17) using the Strengths and Difficulties Questionnaire (SDQ) and the Multidimensional Scale of Perceived Social Support (MSPSS).

Results: The mean age at initial elopement was 14 (+/- 0.76) years. Family dysfunction, including domestic violence (60.3%) and paternal alcohol use (86.4%), was a major attribute for elopement. Notably, 91.2% of adolescents were unaware of the legal age of consent. The re-elopement rate was 17.6%. It is also observed that the school dropout rate among these adolescents is 44.1%. Significant negative correlations were found between family support and total psychological difficulties ($r = -.451$, $p < .001$). Predictors of re-elopement included low family support ($p < .001$), high difficulty scores ($p = .006$), and household substance use ($p < .001$).

Conclusion: Household dysfunction, legal illiteracy, and low family support increase vulnerability to re-elopement among adolescent CSA survivors. Strong family support acts as a protective factor, mitigating the risk of revictimization. Structured multidisciplinary interventions, including psychosocial support, family engagement, legal education, and school re-entry programmes, should be implemented alongside community-based initiatives.





ABSTRACT ID: OP 36

Title

Electronic Screen Use, Bedtime Practices and Sleep Quality in Preschool Children: A Cross-Sectional Study from Four Provinces of Sri Lanka

Authors

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ABSTRACT

Introduction: Excessive electronic screen exposure in early childhood is a growing public health concern affecting sleep health. Evidence from South Asian settings remains limited.

Objectives: To evaluate the prevalence of electronic screen use and its association with sleep duration and quality among preschool children.

Methods: A cross-sectional study was conducted among 1,125 children aged 3–5 years across four provinces of Sri Lanka. Data were collected via a validated interviewer-administered questionnaire. Screen time (<60 min/day) and sleep duration (10–13 h/day) were classified using WHO recommendations. Sleep quality was assessed using a 7-point Likert scale. Analysis included 1,114 participants with complete data. Associations were examined using chi-square tests, independent t-tests, and odds ratios (OR) with 95% confidence intervals (CI).

Results: Mean daily screen time was 81.7 ±70.5 minutes, with 63.6% exceeding WHO limits. Nonadherence was highest in the urbanized Western Province (30.7% met guidelines; $p=0.004$). Mean sleep duration was 10.75±2.29 hours, with 68.1% meeting recommended sleep duration. Mean sleep quality score was 6.18±1.36. Children not meeting WHO screen time recommendations had significantly higher odds of failing to meet sleep duration recommendations (OR 1.35, 95% CI 1.03–1.76, $p=0.029$). Bedtime practices and presence of screen devices in the bedroom were not associated with sleep duration or quality.

Conclusions: Excess screen exposure is common among preschool children in Sri Lanka, with marked provincial variation and is associated with inadequate sleep duration. Strengthening parental guidance on screen use may promote healthier sleep practices.





ABSTRACT ID: RP 001

Title

Consensus Recommendations for Vitamin D Supplementation in Children and Adolescents: An Asia-Pacific Perspective with Guidance for Low-Middle Income Countries (LMIC)

Authors

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ABSTRACT

Introduction: Vitamin D deficiency affects 30–90% of children across the Asia-Pacific region despite abundant sunshine. Contributing factors include limited dietary intake, air pollution reducing UVB transmission, cultural or religious practices favouring sun avoidance, indoor lifestyles, and dark skin pigmentation. This high prevalence, combined with inconsistent clinical practices and lack of unified regional guidelines, creates an urgent need for evidence-based guidance adapted to Asia-Pacific contexts.

Objectives: To develop regionally relevant, evidence-based consensus recommendations for vitamin D supplementation and management in children aged 0–18 years across the Asia-Pacific region under the auspices of the Asia Pacific Paediatric Association (APPA).

Methods: An expert panel of paediatric endocrinologists and child nutrition specialists conducted an informal consensus process utilizing GRADE evidence synthesis. A literature review of articles published 2000–2025 on Asia-Pacific regional vitamin D deficiency prevalence data and key international guidelines. Consensus recommendations were developed through iterative expert discussion addressing clinical questions on indications, dosing, screening, treatment, safety, and public health implementation.

Results: The panel developed evidence-based recommendations spanning empiric supplementation strategies, age-appropriate dosing protocols, screening and diagnosis approaches, treatment of confirmed deficiency, safety considerations, and public health interventions. Recommendations emphasize universal supplementation approaches, targeted screening for high-risk populations, and coordinated clinical and public health strategies adapted to regional dietary patterns, cultural contexts, and healthcare infrastructure.

Conclusions: This consensus provides a comprehensive framework to guide clinical practice and public health policy for reducing the burden of vitamin D deficiency among children in the Asia-Pacific region, with an emphasis on feasibility and local adaptation.





ABSTRACT ID: RP 002

Title

Barriers to Early Detection of Childhood Leprosy: A Systematic Review of Diagnostic Challenges and Delays

Authors

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ABSTRACT

Introduction: Leprosy is a neglected tropical disease causing substantial burden in low-income countries. Childhood cases reflect active community transmission despite global control efforts. Early diagnosis remains challenging, contributing to delayed detection and increased disability risk.

Objectives: To identify and characterize barriers to early case detection contributing to diagnostic challenges in paediatric leprosy.

Methods: A systematic review was conducted to evaluate diagnostic challenges and factors associated with delayed detection in paediatric leprosy. Electronic databases were searched up to February 2026 using predefined MeSH terms.

Results: Nine observational studies met the criteria, with a total 1,085 patients. Three studies were conducted in India, others in Nepal, Brazil, China, and Nigeria. Diagnostic delays ranged from 11 months to 5 years. Factors contributing to delayed diagnosis were categorized into three domains: health system factors, healthcare provider factors, and socio-community factors. Limited access to primary healthcare, inadequate awareness among healthcare workers, as well as frequent misdiagnosis due to the paucibacillary and oligo-symptomatic nature of pediatric lesions were reported. A higher proportion of multi-bacillary (MB) cases was observed in late diagnosed patients. Intense social stigma and suboptimal knowledge regarding leprosy were noted in the community.

Conclusion: High rates of disability and the prevalence of MB cases in children signal a failure of early detection. Addressing these requires enhancing primary healthcare worker training and augmenting community awareness to improve disease recognition. Establishing specialized referral units and providing access to advanced diagnostic modalities are essential strategies to reduce diagnostic delay and prevent long-term morbidity.





ABSTRACT ID: RP 003

Title	Neonatal Auditory Interventions: A Global Bibliometric Analysis
Authors	QU Weiliang ¹
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ABSTRACT

Objective: To review and analyze the current status, research hotspots, and emerging trends in neonatal auditory intervention research in China and internationally, providing a reference for future studies in this field in China.

Methods: Literature on neonatal auditory interventions published from database inception to 2025 was retrieved from the CNKI and Web of Science Core Collection. CiteSpace was used for bibliometric and visual analysis.

Results: A total of 242 Chinese and 391 English articles were included. Annual publications are increasing both domestically and internationally, though the total number of Chinese publications remains lower than the international count. The United States is the leading publishing country, with China ranking second; international collaboration networks remain relatively fragmented. Research hotspots focus on sound types such as music and white noise, and their effects on pain management and growth and development. International studies pay more attention to neural developmental mechanisms and family-participatory care, whereas domestic studies mainly focus on basic nursing applications. Emerging frontiers include precise pain interventions and non-nutritive sucking.

Conclusion: Research in this field is in a phase of rapid development. Future domestic research should strengthen interdisciplinary collaboration, broaden application scenarios, further explore mechanisms of action, and promote the integration of auditory interventions with developmental care and family-participatory care.





ABSTRACT ID: RP 004

Title

Outcomes of Pediatric Patients with Myocarditis Undergoing Extracorporeal Membrane Oxygenation

Authors

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ABSTRACT

Introduction: Extracorporeal membrane oxygenation (ECMO) is a crucial life-saving intervention in managing severe myocarditis in children. While technological and clinical advancements in ECMO are expanding its indication, comprehensive data on both short-term and long-term outcomes in pediatric myocarditis receiving ECMO remain limited.

Objectives: To assess outcomes and complications in pediatric myocarditis patients supported by ECMO.

Methods: PubMed, EMBASE, and Cochrane databases were searched for studies reporting outcomes in children with myocarditis receiving ECMO to evaluate in-hospital mortality, heart transplantation, long-term outcomes, and complications. A meta-analysis of proportions using a random-effects model based on the inverse-variance method to pool study estimates with 95% confidence intervals (CI). The Freeman-Tukey double-arcsine transformation was applied to stabilize the variance. Subgroup analyses and meta-regression analyses were performed.

Results: This meta-analysis included 29 studies involving 1,022 participants. The pooled in-hospital mortality proportion was 25.5% (95% CI, 21.6%–29.7%) in patients receiving ECMO. The pooled estimate of heart transplant was 6.2% (95% CI, 2.4%–11.2%), long-term mortality was 26.8% (95% CI, 17.7%–36.8%), and progression to dilated cardiomyopathy was 3.8% (95% CI, 0.8%–10.7%). Infection (16.6%; 95% CI, 8.6%–26.1%), renal failure (39.5%; 95% CI, 27.7%–51.8%) neurologic events (17.0%; 95% CI, 12.1%–22.3%), and bleeding (26.7%; 95% CI, 20.9%–32.9%) were associated with numerically higher in-hospital mortality, though nonsignificant.

Conclusions: ECMO was indicated as a critical resuscitation modality in children with acute myocarditis. Considerable in-hospital mortality and complications were observed. Further prospective studies are necessary to guide clinical decision-making for the ECMO strategy in pediatric myocarditis.





ABSTRACT ID: RP 005

Title	Efficacy and Safety of Ultrasound-guided Dynamic Needle Tip Positioning for Neonates and children less than 5 years old Vascular Puncture: A Systematic Review and Meta-analysis
Authors	Wanxiang He ¹ , Yuying Mo ¹ , Shuping Quan ¹ , Xiaojuan Liu ¹ , Fen Zhen ¹
Affiliations	¹ Peking University Shenzhen Hospital, China

ABSTRACT

Background: Neonatal and pediatric vascular puncture is critical, with success rates influencing outcomes. While ultrasound is recommended, the efficacy of Dynamic Needle Tip Positioning (DNTP) remains unclear. This review synthesizes evidence on DNTP compared to traditional methods.

Objective: To systematically review and meta-analyze DNTP efficacy versus conventional methods (palpation and static ultrasound) in children under 5, focusing on first-attempt success, overall success, duration, and complications.

Information Sources: PubMed, Embase, Web of Science, Scopus, Cochrane Library, WanFang, and CNKI were searched from inception to January 2026.

Methods: Following PRISMA guidelines, two reviewers screened studies and extracted data. Analyses used random-effects models, with subgroup and sensitivity analyses exploring robustness and moderators like age and operator specialty.

Results: Sixteen studies (1,374 patients) were included. DNTP significantly improved firstattempt success (RR = 0.36), reduced duration, and decreased complications, with benefits more pronounced in neonates. Non-anesthesiologists showed robust improvements, suggesting training facilitates dissemination. Overall success improvements were modest.

Conclusions: DNTP enhances first-attempt success and reduces complications, especially in neonates. Impact on overall success is limited. Evidence from sedated settings limits generalizability; standardization and multi-center studies in diverse environments are needed.





ABSTRACT ID: RP 006

Title	Efficacy and Safety of Ultrasound-guided Dynamic Needle Tip Positioning for Neonates and children less than 5 years old Vascular Puncture: A Systematic Review and Meta-analysis
Authors	Yuying Mo ¹ , Yuying Mo ¹ , Wanxiang He ¹ , Shuping Quan ¹ , Xiaojuan Liu ¹ , Fen Zhen ¹
Affiliations	¹ Peking University Shenzhen Hospital, China

ABSTRACT

Background: Neonatal and pediatric vascular puncture is critical, with success rates influencing outcomes. While ultrasound is recommended, the efficacy of Dynamic Needle Tip Positioning (DNTP) remains unclear. This review synthesizes evidence on DNTP compared to traditional methods.

Objective: To systematically review and meta-analyze DNTP efficacy versus conventional methods (palpation and static ultrasound) in children under 5, focusing on first-attempt success, overall success, duration, and complications.

Information Sources: PubMed, Embase, Web of Science, Scopus, Cochrane Library, WanFang, and CNKI were searched from inception to January 2026.

Methods: Following PRISMA guidelines, two reviewers screened studies and extracted data. Analyses used random-effects models, with subgroup and sensitivity analyses exploring robustness and moderators, including age and operator specialty.

Results: Sixteen studies involving 1,374 pediatric patients were included. Pooled analysis demonstrated that DNTP offered significant advantages over comparator groups in first-attempt success rate ($RR = 0.36$, $z = 7.85$), reduction of puncture duration ($RR = -1.72$, $z = -3.96$), and decreased complication incidence ($RR = -1.39$, $z = -5.32$). However, improvements in the overall success rate were modest ($RR = 0.26$, $z = 5.96$). Subgroup analysis revealed that the benefits of DNTP were more pronounced in neonates. Furthermore, the improvement in overall success was more robust when the technique was employed by non-anesthesiologists, suggesting that structured training facilitates technological dissemination.

Conclusions: DNTP enhances first-attempt success and reduces complications, especially in neonates. Impact on overall success is limited. Evidence from sedated settings limits generalizability; standardization and multi-center studies in diverse environments are needed.





ABSTRACT ID: RP 007

Title	Genotype-phenotype correlations in PSACH/EDM1 patients with COMP gene variants: a comprehensive review of 830 cases
Authors	Xiaolin Ni ¹ , Liya Wei ¹ , Di Wu ¹ , Weibo Xia ²
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ABSTRACT

Introduction: Pseudoachondroplasia (PSACH) and multiple epiphyseal dysplasia-1 (EDM1) are two rare skeletal diseases with substantial clinical overlap, caused by variants in the gene coding cartilage oligomeric matrix protein (COMP).

Objectives: To summarize the clinical characteristics of PSACH/EDM1 and variants of COMP gene, as well as to explore the correlations between them.

Methods: PubMed, China National Knowledge Infrastructure, and Wanfang were searched for case reports and case series of patients with genetic diagnosis of PSACH/EDM1 from the inception to 24 March 2025.

Results: A total of 830 PSACH/EDM1 patients (471 probands) harboring 224 different variants of COMP gene were enrolled from 106 articles, with missense variants accounting for the majority (80.8%). Exon 13 (183 probands, 38.9%) and type III (T3) repeat domain (413 probands, 87.7%) were the most commonly affected regions, with c.1417_1419del (p.Asp473del) being the most common hotspot variant. Compared with EDM1, PSACH manifested earlier age of onset, shorter stature, higher rates of lower limb deformity, joint laxity, anterior beaking of the vertebra and irregular/flared metaphysis, while lower rate of joint pain/osteoarthritis and abnormal femoral head. Missense variants in T3-4 and T3-5 were more likely to cause EDM1, while those in T3-1 and T3-6 to T3-8 were associated with a greater frequency of PSACH. Majority of in-frame variants were found in PSACH, as c.1417_1419del being PSACH specific.

Conclusions: PSACH exhibits more severe phenotypes than EDM1. Missense variants in T3-1 and T3-6 to T3-8, and in-frame variants are more strongly associated with PSACH, as the hotspot variant c.1417_1419del exclusively identified in PSACH.





ABSTRACT ID: RP 008

Title	Construction of risk prediction model for acute moderate to severe pain in children with traumatic limb fracture after surgery
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ABSTRACT

Objective: To explore the influencing factors of acute moderate to severe pain in children with traumatic limb fracture, and to develop a nomogram prediction model to predict pain risk within 24 hours in these children.

Methods: From June 2024 to December 2024, 300 children and their parent with limb fracture undergoing surgery were included in the study. The independent risk factors of APSP through univariate analysis and Logistic regression analysis were explored. According to these selected independent risk factors, a risk prediction model was established and incorporated into the nomogram, and the model power and its accuracy were evaluated by receiver operating characteristic (ROC).

Results: The risk prediction model was constructed based on 3 influencing factors, including degree of limb swelling, preoperative pain and preoperative anxiety of children. The area under the predicted ROC curve was 0.906. When the Yoden index was 0.617, the optimal critical value was 0.779, the sensitivity was 0.695, and the specificity was 0.922. The Hosmer-Lemeshow test was $\chi^2 = 0.525$ ($P = 0.971$).

Conclusion: The prediction model constructed in this study has a good effect, which can provide a reference for clinical evaluation of the risk of APSP in children with limb fracture.





ABSTRACT ID: RP 009

Title	Allergic rhinitis in children aged 5-14 years with recurrent upper respiratory infections at outpatient department of Lady Ridgeway Hospital for Children, Colombo, Sri Lanka.
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ABSTRACT

Introduction: Allergic rhinitis is a common allergic condition in children associated with significant morbidity. In routine practice, children with allergic rhinitis often present with recurrent respiratory tract infections (defined as ≥ 5 infections per year), which may be misinterpreted as repeated infections. This can result in underdiagnosis, inappropriate antibiotic use, and persistent symptoms. Local evidence on allergic rhinitis in children with recurrent respiratory tract infections is limited.

Objectives: To assess the prevalence of allergic rhinitis, associated factors, and its impact on quality of life among children aged 5–14 years presenting with recurrent respiratory tract infections to the outpatient department of Lady Ridgeway Hospital for Children, Colombo.

Methodology: A descriptive cross-sectional study was conducted among 250 children aged 5–14 years with recurrent respiratory tract infections. Data were collected using an interviewer-administered questionnaire based on ISAAC Phase III questionnaire and Pediatric Quality of Life Inventory (PedsQL™). Socio-demographic, environmental, atopic, and examination findings were analyzed using SPSS. Statistical significance was set at $p < 0.05$.

Results: The prevalence of allergic rhinitis was 30.4%, with a male preponderance. Ocular symptoms (18.4%), asthma ($p < 0.001$), and characteristic ENT findings ($p < 0.05$) were significantly associated with allergic rhinitis. Sleep, school functioning, and daily activities were significantly impaired by allergic rhinitis ($p < 0.05$).

Conclusions: Allergic rhinitis is a clinically significant condition among children with recurrent respiratory tract infections. Routine outpatient assessment may improve early recognition, optimize symptom control, and reduce unnecessary antibiotic use. Further studies are needed to assess long-term impact in Sri Lankan children.





ABSTRACT ID: RP 010

Title	Epigenetic activation of TUSC3 as a novel therapeutic target for XMEN disease: insights from a Chinese pediatric cohort
Authors	Jia Hou ¹ , Guanghui Shen ¹ , Lipin Liu ¹ , Wenjie Wang ¹ , Bijun Sun ¹ , Wenjing Ying ¹ , Chenghao Wang ¹ , Jinqiao Sun ¹ , Zhigang Lu ² , Min Luo ¹
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ABSTRACT

Introduction: X-linked MAGT1 deficiency (XMEN) is a rare primary immunodeficiency causing impaired NKG2D expression and defective cytotoxicity. There is currently no effective targeted therapy. TUSC3, a paralog of MAGT1, is epigenetically silenced in immune and liver tissues, preventing its compensatory upregulation.

Objectives: To validate clinical and immunological features of XMEN in a pediatric cohort and propose a therapeutic strategy via TUSC3 epigenetic activation.

Methods: Retrospective analysis of 18 pediatric patients with MAGT1 variants. Clinical data, immunoglobulins, lymphocyte subsets, and liver enzymes were documented. NKG2D expression and cytotoxicity were assessed. In vitro effects of Decitabine and Panobinostat on TUSC3 expression and function were evaluated.

Results: All patients showed decreased NKG2D expression. EBV infection (72%) and lymphoma (28%) were prevalent; 56% had elevated liver enzymes. Most harboured early termination variants. Cytotoxicity was significantly impaired. Decitabine and Panobinostat synergistically upregulated TUSC3 expression, restored NKG2D surface expression, enhanced cytotoxicity, and ameliorated liver enzyme release.

Conclusions: This study delineates XMEN's clinical and immunological spectrum in a Chinese pediatric cohort. Deficient NKG2D expression and impaired cellular cytotoxicity represent core immunological defects in XMEN. Epigenetic silencing of TUSC3 is a key mechanism. Combining Decitabine and Panobinostat is a promising targeted strategy to improve immune deficiency and liver abnormalities in XMEN.





ABSTRACT ID: RP 011

Title	Fructooligosaccharides Alleviate Early-Life Antibiotic-Exposed Food Allergy via the Indole-3-propionic Acid-AhR-Nrf2 Axis: A Multi-omics Prospective Cohort Study
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ABSTRACT

Background: Gut microbiota is critical in food allergy (FA) development. While early-life antibiotics increase FA risk, the mechanism is unclear, and current treatments cannot correct underlying immune defects.

Objective: To investigate how early-life antibiotics exacerbate FA and whether fructooligosaccharides (FOS) can restore gut-immune balance.

Methods: We linked early-life antibiotic use to gut dysbiosis and metabolites in a birth cohort, modeled mechanisms and FOS intervention in antibiotic-exposed FA mice, and validated FOS efficacy in a pediatric trial.

Results: Early-life antibiotics caused persistent gut dysbiosis (notably *Lactobacillus* depletion) and disrupted tryptophan metabolism, ultimately resulting in oxidative stress, barrier damage, and T-cell imbalance. FOS restored *Lactobacillus* and the tryptophan metabolite indole-3-propionic acid (IPA). IPA alleviates mitochondrial dysfunction and reactive oxygen species accumulation via activation of the aryl hydrocarbon receptor (AhR)-nuclear factor erythroid 2-related factor 2 (Nrf2)-heme oxygenase-1 (HO-1) antioxidant pathway, and enhances intestinal barrier integrity, ultimately rebalancing T-cell homeostasis and attenuating FA. In a pediatric trial, metagenomic sequencing revealed that FOS enriches both *Lactobacillus johnsonii* and *Clostridium sporogenes*, synergistically promoting IPA production—which correlates with reduced SCORAD scores and improved weight gain.

Conclusions: Early-life antibiotics cause lasting disruptions in gut microbiota and metabolism that worsen FA. FOS mitigates FA by boosting microbiota-derived IPA to activate the protective AhR-Nrf2-HO-1 pathway, highlighting its therapeutic potential for FA, particularly in patients with prior antibiotic exposure.





ABSTRACT ID: RP 012

Title	Microbial metabolite Indole-3-carboxaldehyde prevents antibiotic-induced food allergy by activating the AhR-ILC3-IL-22 axis
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ABSTRACT

Early-life antibiotic exposure is a significant environmental risk factor for food allergy (FA), yet its pathogenic mechanisms remain unclear. This study, utilizing an early-life antibiotic exposure FA mice model, aryl hydrocarbon receptor (AhR) knockout mice, and an in vitro intestinal epithelial injury model, systematically elucidates the critical role of the "microbiota-tryptophan metabolism-AhR-ILC3-IL-22-gut barrier" axis.

The results demonstrate that early-life antibiotic exposure leads to gut microbiota dysbiosis and a reduction in the tryptophan metabolite indole-3-carboxaldehyde (Iald), which subsequently suppresses AhR signaling, decreases intestinal group 3 innate lymphoid cell (ILC3) proportions and interleukin-22 (IL-22) secretion, ultimately impairing gut barrier function and increasing susceptibility to FA.

Exogenous IAlD supplementation significantly restored ILC3-IL-22 axis function, enhanced intestinal epithelial tight junction protein expression, and alleviated allergic symptoms, effects that were entirely AhR-dependent. Mechanistically, IAlD promotes barrier-related protein expression in intestinal epithelial cells directly via AhR activation and synergistically enhances barrier repair through the ILC3-IL-22 pathway.





ABSTRACT ID: RP 013

Title	Prediction of Future Onset of Allergic Rhinitis and Analysis of Risk Factors in Children with Food Allergy during Infancy
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ABSTRACT

Background: The atopic march describes the progression from infantile food allergy (FA) to allergic rhinitis (AR) in later childhood. However, not all children with FA follow this trajectory, and predictors for AR development in this population remain poorly characterized.

Objective: To identify factors influencing AR development in infants with FA and construct a predictive model for clinical application.

Methods and Results: A prospective cohort included 447 infants (0-2 years) with positive food allergens, followed up to 6 years with questionnaire/clinical data. Of the 196 initially collected features, highly relevant ones were identified through ranking and comparison, and a disease prediction model was established. Post-ranking, the three key features were tobacco exposure duration, antibiotic use (notably penicillin/cephalosporin), and parental AR history, all showing positive correlations. Multinomial Naive Bayes (MNB) model (accuracy: 0.8980, F1-score: 0.8352, ROC-AUC: 0.9152) and the Multilayer Perceptron (MLP) model (accuracy: 0.9272, F1-score: 0.8791, ROC-AUC: 0.8928) demonstrated the best performance.

Conclusions: The study's machine learning prediction model has strong practical value. Early avoidance of relevant exposure factors in children at high AR risk may aid its primary and secondary prevention.





ABSTRACT ID: RP 014

Title	Cuproptosis-related genes influence host immune and gut microbial responses in asthma
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ABSTRACT

Cuproptosis, a copper-dependent cell death mechanism, has emerged as a novel regulator of asthma progression. We investigated the expression of cuproptosis-related genes during the occurrence and progression of asthma, elucidated their correlation with inflammatory immunity and gut microbiota, and explored novel asthma pathogenesis mechanisms.

Using the GSE64913 asthma dataset from the Gene Expression Omnibus (GEO), we performed Gene Ontology (GO), Kyoto Encyclopedia of Genes and Genomes (KEGG), Gene Set Enrichment Analysis (GSEA), Weighted Gene Co-Expression Network Analysis (WGCNA), and immune cell infiltration investigations to identify 13 cuproptosis-related differentially expressed genes (CuDEGs).

An ovalbumin-induced mouse asthma model revealed exacerbated airway inflammation and elevated IL-5, IgE, and copper levels. Quantitative Real-time polymerase chain reaction (qRTPCR) and Western Blot (WB) confirmed the downregulation of iron sulfur cluster protein FDX1, LIAS, ACO2, ETFDH, NDUFV1, mitochondrial proteins DLAT and DLST, and several CuDEGs in the OVA group, including ATP7A, CP, SLC31A1. Furthermore, high-throughput mRNA and 2bRAD-M microbial sequencing revealed correlations between CuDEGs expression profiles, inflammatory immune signatures, and gut microbiota composition.

Collectively, our study demonstrates that cuproptosis modulates airway inflammation in asthma. CuDEGs participate in immune regulation and inflammatory response through the gut microbiota-cuproptosis-asthma axis, supporting the gut-lung axis theory and providing insights into asthma pathogenesis.





ABSTRACT ID: RP 015

Title	MyD88 mediates allergic airway inflammation by regulating ILC2s function through inducing the formation of P38/GATA3 complex
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ABSTRACT

Background: Allergic asthma stands as the predominant asthma phenotype propelled by aberrant type 2 immune response. Type-2 innate lymphoid cells (ILC2s) are significant for generating IL-5 and IL-13 cytokines, highlighting their vital role in triggering and escalating the progression of asthma. Myeloid differentiation primary response protein 88 (MyD88) controls innate and adaptive immune responses by orchestrating inflammatory signals.

Objective: This work focused on investigating the influence of MyD88 in governing ILC2s-driven allergic airway disease alongside its underlying molecular mechanisms.

Methods: We evaluated the effects of MyD88 in IL-33-induced or allergen-induced airway hyperreactivity (AHR) and airway inflammation. The role and mechanism of MyD88 in regulating ILC2s function were examined in vivo and in vitro by using transcriptome sequencing analysis, flow cytometry, clinical samples, ILC2-specific MyD88 knockout mice, and anti-Thy1.2 antibody against ILC2s in mice.

Results: The results showed heightened MyD88 expression in ILC2s sourced from allergic asthmatic patients and asthmatic mice. MyD88 knockout in ILC2s was able to mitigate IL-33- induced airway inflammation, while the MyD88 inhibitor LM8 proves efficacious in attenuating allergen-induced airway inflammation and AHR. After elimination of ILC2s via anti-Thy1.2 antibody, the pharmacological activity of LM8 diminished. Mechanistic studies revealed that MyD88 mediates the activation and proliferation of ILC2s through facilitation of P38-GATA3 complex formation.

Conclusions: The research highlights MyD88 as a critical regulator of ILC2s activation, suggesting its potential utility as a therapeutic target for interventions in allergic asthma.





ABSTRACT ID: RP 016

Title	Quercetin restores barrier-immune axis in food allergy via PI3K/AKT/mTOR signaling pathway
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ABSTRACT

Background: Food allergy (FA) is a growing global health concern characterized by immune dysregulation and intestinal barrier dysfunction.

Methods: Our research investigates the therapeutic potential of quercetin, a natural flavonoid, in FA through quercetin's dual modulation of immune homeostasis and epithelial integrity. In a mouse model of FA treated with quercetin, mice were orally administered quercetin at doses of 10, 50, and 100 mg/kg for 14 days to assess the therapeutic effects. In in vitro studies, Caco-2 cells were employed to examine the impact of quercetin on the intestinal barrier.

Results: Our results demonstrate that quercetin significantly alleviates clinical symptoms by restoring Th17/Treg balance through PI3K - AKT - mTOR pathway inhibition and enhancing intestinal barrier function. In cellular studies, quercetin dose-dependently restored barrier integrity via suppression of the MLCK/P-MLC2 axis. Collectively, quercetin ameliorates food allergy by precisely modulating the PI3K - AKT - mTOR signaling pathway to restore Th17/Treg immune homeostasis while repairing intestinal barrier function.

Conclusions: These findings reveal quercetin's unique capacity to simultaneously target immune and epithelial pathologies in FA, positioning it as a promising disease-modifying therapy.





ABSTRACT ID: RP 017

Title	Alpha-Gal Syndrome in Sri Lankan Children: Clinical Spectrum and Insights from Basophil Activation Testing
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ABSTRACT

Introduction: Alpha-gal syndrome (AGS) is a unique, delayed-type food allergy triggered by galactose- α -1,3-galactose, a carbohydrate found in mammalian meat and related products.

Objectives: This study aimed to describe the clinical profiles, sensitization patterns, and basophil reactivity of children diagnosed with AGS at a specialized allergy clinic in Sri Lanka between 2023 and 2025.

Methods: 78 children (42 males) with a suspected history of alpha-gal syndrome (AGS) were recruited. Demographic data were collected along with a comprehensive clinical evaluation. All participants underwent skin prick testing (beef, pork, mutton, gelatin, and cow's milk) and measurement of serum alpha-gal-specific IgE using ImmunoCAP. Basophil Activation Testing (BAT) was performed in a subset (n=8) to assess basophil reactivity to alpha-gal, beef, pork, mutton, and cow's milk allergens.

Results: The median age of the cohort was 11 years (IQR: 6 months–18 years), and the age of onset of AGS was 5 years (IQR: 3-9 years). Anaphylaxis was documented in 48 patients (61.54%; 95% CI: 50- 71.6). The median time interval between the exposure and symptom onset was 2-6 hours. A positive family history of mammalian meat allergy was a significant risk factor for AGS ($p < 0.0001$; OR = 14.2, 95% CI: 3.9–30.1). In the subset undergoing BAT, marked basophil reactivity to alpha-gal and other allergens were observed, with activation profiles indicating a primed basophil phenotype.

Conclusion: AGS in Sri Lankan children presents with a high burden of anaphylaxis and delayed reactions, and BAT functional evidence of sensitization, supporting improved diagnostic accuracy.





ABSTRACT ID: RP 018

Title	Molecular Mechanism of Ferricytin-1-Mediated Ferroptosis in Keratinocytes for Improving Atopic Dermatitis
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ABSTRACT

Introduction: Atopic dermatitis (AD) is a chronic inflammatory skin disease characterized by epidermal barrier dysfunction. Ferroptosis, a form of programmed cell death driven by lipid peroxidation, has been implicated in various diseases. However, the role of ferroptosis in AD pathogenesis remains unclear. This study aimed to elucidate the mechanism of ferroptosis in AD keratinocytes.

Methods: Eighteen C57BL/6J mice were randomized into control, AD, and AD+Ferrostatin-1 (Fer-1) groups. An AD model was induced via house dust mite (HDM) sensitization. Fer-1 was intraperitoneally administered to the intervention group. Skin histopathology was evaluated using HE staining. Levels of Fe²⁺, reactive oxygen species (ROS), and inflammatory cytokines were measured. Transmission electron microscopy and Western Blot were employed to assess mitochondrial morphology and ferroptosis-related protein expression.

Results: HDM exposure significantly elevated Fe²⁺, ROS, and malondialdehyde levels, while decreasing the Oxidized/reduced glutathione (GSH/GSSG) ratio in keratinocytes. The AD group exhibited downregulated GPX4 and SLC7A11, alongside upregulated ACSL4 and PTGS2, indicating ferroptosis activation. Fer-1 treatment mitigated lipid peroxidation, reversed aberrant expression of ferroptosis markers, and alleviated AD-like skin lesions and inflammation.

Conclusions: Ferroptosis occurs in AD keratinocytes. Fer-1 ameliorates AD symptoms by inhibiting ferroptosis and regulating inflammatory responses, suggesting ferroptosis as a potential therapeutic target for AD.





ABSTRACT ID: RP 019

Title	Prospective Birth Cohort: Cephalosporins ive Gut Microbiota and Food Allergy
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ABSTRACT

Background: The rising prevalence of food allergy (FA) contrasts with the inconclusive role of early-life antibiotic exposure. Given the widespread clinical application of cephalosporins in obstetrics and infancy, this represents a critical knowledge gap. This study therefore employs a prospective birth cohort design to precisely investigate the association between time-specific cephalosporin exposure and subsequent FA risk.

Methods: We enrolled 1275 mother-infant pairs and prospectively monitored them for six months, recording antibiotic exposure and collecting infant fecal samples at six months of age for gut microbiota analysis.

Results: 1052 dyads had completed the study, and 224 children met the diagnostic criteria for FA. Analysis of 939 eligible mother-child pairs revealed that infants with positive family allergic history (aOR = 1.621), cephalosporins exposure within 0-1 months of age (aOR=10.285) or 1-2month of age (aOR=3.094), as well as longer intervals between intrapartum cephalosporins administration and fetal delivery (aOR=1.155) faced a significantly higher risk of FA. Gut microbiota and metabolite analyses suggested cephalosporins may induce FA by disrupting the gut microbiota, which subsequently leads to metabolic disorder, especially tryptophan and NO generation pathways, ultimately resulting in intestinal barrier damage and Th2 immune imbalance.

Conclusions: Our study identifies early-life cephalosporins exposure as a risk factor for FA, which most likely through restructuring gut microbiota and downstream dysregulation of antiinflammatory/ antioxidant pathways. These findings underscore the importance of precise administration of obstetric antibiotics and optimization of early-life antibiotic use. Furthermore, the identified microbiota-metabolite-FA correlations offer new avenues for managing FA progression and symptoms.





ABSTRACT ID: RP 020

Title

Phenotype-Specific Remission Outcomes Associated With Add-on Low-Dose Azithromycin in Children With Severe Asthma: A Real-World Study

Authors

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ABSTRACT

Introduction: Severe asthma in children is heterogeneous, and many remain poorly controlled despite optimized therapy. Asthma remission, a long-term outcome beyond symptom control, has gained attention. Low-dose azithromycin shows immunomodulatory effects in adults, but pediatric evidence across phenotypes is limited.

Objective: To evaluate effectiveness and safety of add-on low-dose azithromycin in children with severe asthma and explore phenotype-specific remission outcomes.

Methods: This real-world observational study included children with severe asthma diagnosed by GINA criteria. Patients received add-on azithromycin 10 mg/kg, three times weekly, for 3 months alongside standard therapy; remission was assessed over 12 months. Patients were classified as T2-high or T2-low based on clinical features and inflammatory markers (blood eosinophils, FeNO, IgE). Primary outcome: clinical remission, defined as no exacerbations, no oral corticosteroids in the preceding 6 months, and ACQ-5 ≤ 1 at 12 months. Secondary outcomes: clinical remission plus lung function remission (post-bronchodilator FEV₁ $\geq 80\%$ predicted or decline $\leq 5\%$) and complete remission (clinical + lung function remission plus sputum eosinophils $< 3\%$). Sensitivity analyses assessed robustness; predictors of clinical remission were explored.

Results: 106 children were included. Clinical remission rates were similar between T2-high and T2-low asthma. T2-low asthma had higher rates of clinical remission with lung function remission and complete remission. No serious adverse events occurred.

Conclusions: Add-on low-dose azithromycin was associated with clinical remission in a subset of children. While overall clinical remission was similar across phenotypes, deeper remission outcomes were more frequent in T2-low asthma, supporting further prospective studies.





ABSTRACT ID: RP 021

Title

Unravelling Paediatric IgE-Mediated Food Allergy: A Single-Center Clinical Experience

Authors

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ABSTRACT

Introduction: IgE-mediated food-allergy is a leading cause of allergic reactions in children, with clinical patterns and implicated allergens varying by geographic region.

Objectives: To describe the clinical and demographic characteristics of children with IgE-mediated food-allergy presented at a tertiary-pediatric allergy service.

Methods: Retrospective data from children diagnosed with IgE-mediated food-allergy from 1 August 2024-31 January 2026 at a tertiary-pediatric allergy service.

Results: A total of 125 children were included; 64.8% (n=81) male, mean-age 8.14±4.13 years, with a mean-age of allergy-onset 5.5±4.05 years. The most common allergens were red meat (63.2%, n=79), dairy (57.6%, n=72; of which 94.4% represented secondary-dairy allergy), and gelatin (29.6%). Overall, 94.4% (n=118) of children were allergic to either red meat, dairy, gelatin, or their combinations. Other allergens included crustaceans (2.4%, n=3), cashew (1.6%, n=2), wheat (1.6%, n=2), chicken (0.8%, n=1), and eggs (0.8%, n=1). Anaphylaxis occurred in 67.2% (n=84), most frequently to dairy (n=45, 53.6%) and red meat (n=44, 52.4%). Cutaneous (96%), gastrointestinal (42.4%), respiratory (64%) and cardio-vascular (13.8%) manifestations were noted. Symptoms developed <2 hours in 44.8%, and 59.2% reported inconsistent allergic manifestations. Vaccine-related reactions were noted in 8.8% (n=11; of which MMR (n=9), pentavalent (n=2)). A family-history of atopy was present in 62.4%, and food allergy in 38.4%. Asthma was significantly associated with an increased risk of anaphylaxis (p=0.015).

Conclusions: IgE-mediated food-allergy in Sri Lankan children is dominated by red meat, dairy, and gelatin-related reactions with frequent anaphylaxis and delayed presentations, suggesting a significant contribution from alpha-gal syndrome and highlighting the need for increased awareness among clinicians.





ABSTRACT ID: RP 022

Title	Body Composition Reference Data for 21,059 Healthy Infants and Young Children Aged 0–36 Months in China
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ABSTRACT

Introduction: Assessment of body composition provides a more comprehensive evaluation of infant nutritional status than traditional anthropometry.

Objectives: This study aimed to characterize body composition patterns in healthy Chinese infants and young children aged 0–36 months and to describe age- and sex-specific developmental trajectories.

Methods: 21,059 healthy infants and young children (0–36 months) were recruited from outpatient clinics across 12 provinces and municipalities in China. Anthropometric measurements were combined with bioelectrical impedance analysis (BIA; LEO-7568) to assess body composition. Percentage of protein, minerals, total body water, muscle mass, skeletal muscle, fat mass, fat-free mass, and regional muscle and water distribution (upper limbs, lower limbs, trunk) were measured. Linear correlation analyses were performed between body composition indicators and anthropometric measures.

Results: While no sex difference was observed in mineral percentage ($P > 0.05$), girls exhibited significantly higher FM% ($P < 0.05$). Conversely, boys showed higher lower-limb muscle mass and trunk water percentage. Distinct age-related patterns were evident ($P < 0.05$ for all indices): BMI and FM% peaked initially before gradually declining, whereas other tissue components generally accrued with age. Notably, while length and weight correlated positively with total skeletal muscle and FFM, upper limb muscle mass showed an inverse correlation with growth parameters, suggesting differential tissue accretion rates during early development.

Conclusions: Body composition in early childhood follows distinct, sex-specific, and agedependent trajectories. This study establishes a foundation for creating national body composition reference standards in China, facilitating personalized feeding guidance and early metabolic risk screening.





ABSTRACT ID: RP 023

Title

Tube Feeding and Nutritional Support in Children with Neurological Impairment in China: A Multicenter Prospective Study

Authors

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ABSTRACT

Introduction: Tube feeding, especially percutaneous endoscopic gastrostomy (PEG), is not commonly adopted in China, even though the ESPGHAN guideline recommends it as the preferred method for nutritional support in children with neurological impairment (NI) and inadequate oral intake.

Objectives: The objectives of this study are to align the knowledge of healthcare professionals, patients, and families with current guidelines and improve their acceptance of PEG through standardized nutritional management of children with NI, with the goal of optimizing nutritional support for these children.

Methods: This is a prospective, multi-center study recruiting children with NI and indications for tube feeding from five medical centers across China. Patients receive standardized nutritional care for 3 months, and their nutritional parameters are recorded before and after the intervention. Demographic and clinical data including diagnosis and tube-feeding-related gastrointestinal symptoms are collected and analyzed.

Results: To date, baseline data collection for 25 children has been completed, with a mean age of 4.7 years. Major diagnoses include cerebral palsy, hypoxic-ischemic encephalopathy, and brain tumor. Baseline nutritional assessment shows a mean Weight-for-age z-score (WAZ) of -0.84 (-2.03, 0.58), with 6 children (25%) having a WAZ < -2, and a mean Height-for-age z-score (HAZ) of -1.08 (-2.19, 0.27), with 8 children (32%) having a HAZ < -2.

Conclusions: Preliminary data demonstrate the high prevalence of significant nutritional risk and feeding challenges among children with NI, providing a necessary foundation for the subsequent systematic evaluation of the impact of tube feeding on nutritional improvement in these children.





ABSTRACT ID: RP 024

Title

Influence of IgE-Mediated Food Allergy Risk on Pediatric Growth Outcomes: A Single-Center Retrospective Analysis

Authors

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ABSTRACT

Background: Food allergy (FA), particularly the IgE-mediated form, directly impairs children's nutritional status.

Objectives: Identifying risk factors for FA and developing strategies to promote growth catchup can provide valuable guidance for the clinical and nutritional management of affected children.

Methods: This retrospective study analyzed food allergen-specific IgE detection and nutritional status in children with IgE-mediated FA in China. A total of 180 children aged 0–12 years with IgE mediated FA and 362 matched healthy controls were enrolled.

Results: Shrimp, crab, peanut, and cod sensitizations peaked after age 6. Shrimp, crab, and peanut showed an upward trend before age 4. Total serum IgE peaked at 2–4 years and declined thereafter. Strong correlations ($P < 0.001$) were found for milk beef, crab shrimp, soybean peanut, sesame almond, almond hazelnut, shrimp almond, and shrimp hazelnut, with moderate cod shrimp and cod crab correlations. Children with food allergy showed poorer growth across all ages ($P < 0.01$) and decreasing BMI Z scores ($P < 0.05$). Those with cutaneous or gastrointestinal symptoms presented earlier, with lower serum zinc and higher BMI Z. Skin manifestations were associated with higher egg white sensitization ($P < 0.05$) and eosinophil percentage. An inverse correlation was observed between the number of food allergens and serum 25 hydroxyvitamin D3 levels ($P < 0.01$).

Conclusion: Children with IgE-mediated food allergies show marked growth impairment and a risk of wasting. Those allergic to a specific food should be aware of cross-reactivity within the same food group and follow personalized avoidance diets.





ABSTRACT ID: RP 025

Title	Development of a Large-Language Model for Aiding Treatment of Obesity in Children and Adolescents
Authors	Li Hong ¹ , Yunman Liu ¹ , Zihan Weng ¹ , Danping Su ¹ , Min Liao ¹ , Chengchen Zhang ¹ , Zhiyan Zhan ¹
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ABSTRACT

Introduction: Obesity in children and adolescents has been a global concern. In recent years, artificial intelligence has advanced in the medical field and achieved significant outcomes.

Objectives: This study aims at developing a large-language model for aiding management of obesity in childhood and adolescents, Fuel Star, enabling intelligently interactive and comprehensive management through multi-scenario - "hospital-school-home" - in-depth consultation.

Methods: A multi-dimensionally structured medical dataset for obesity was constructed, via prompt engineering to cover typical tasks. The Retrieval-Augmented Generation (RAG) technical framework was introduced to enhance semantic consistency.

Results: A total of 61 guidelines, 87 expert consensuses, 1,911 research articles, and 205 highquality clinical cases were included. Through document parsing modules that identified and extracted structural elements, data from different sources were standardized in format and aligned semantically. Each semantic unit was encoded into multi-dimensional vector representations by an embedding model and stored in a semantic-vector database. Prompt engineering guided the model to effectively invoke domain knowledge and control responses without modifying internal parameters, covering typical task types. The RAG framework enabled high-quality semantic retrieval at the document level and, through similarity reevaluation and priority adjustment, ensured maximum alignment between output content and user intent, thereby generating responses that integrated contextual and knowledge-based information.

Conclusion: A multi-source professional database built in Fuel Star, combined with high-quality semantic modeling and lightweight adaptation strategies, supports multi-scenario application, rapid decision-making, in-depth consultation, and interactive question-answer, contributing to the comprehensive long-term management of obesity in children and adolescents.





ABSTRACT ID: RP 026

Title

Kaili Sour Soup and DOPAC Alleviate Loperamide-Induced Constipation in Mice via Gut Microbiota Modulation and Macrophage-Mediated Anti-Inflammatory Pathways

Authors

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ABSTRACT

Introduction: Chronic constipation is intricately linked to gut inflammation and dysbiosis, yet effective therapies targeting these underlying mechanisms remain limited. Objectives: This study investigates the therapeutic potential of Kaili sour soup (KSS), a traditional fermented food, and its key metabolite 3,4-dihydroxyphenylacetic acid (DOPAC) in alleviating loperamide-induced constipation, with a focus on microbiota-immune crosstalk.

Methods: A murine constipation model was established via daily loperamide gavage (10 mg/kg, 7 days). Mice received KSS, DOPAC, or PBS orally, followed by assessments of gastrointestinal transit (charcoal propulsion), fecal water content, inflammatory cytokines (ELISA, Western blot), and gut microbiota (16S rRNA sequencing). Serum metabolomics (LC-MS) identified DOPAC as a critical metabolite. In vitro, bone marrow-derived macrophages (BMDMs) were pretreated with DOPAC and stimulated with LPS to evaluate NF- κ B signaling (RNA-seq).

Results: KSS markedly improved constipation phenotypes, increasing intestinal transit rates by 61% ($P < 0.001$) and fecal water content to near-normal levels ($45.6 \pm 3.5\%$ vs. $28.4 \pm 2.1\%$ in loperamide controls, $P < 0.001$). Metabolomics revealed a 4.8-fold upregulation of DOPAC in KSS-treated mice ($P = 3.2 \times 10^{-6}$), which correlated with suppressed IL-1 β , IL-6, and TNF- α expression ($>50\%$ reduction, $P < 0.001$). DOPAC monotherapy replicated KSS effects, restoring gut motility and reducing inflammation via NF- κ B inhibition in macrophages. Critically, clodronate-mediated macrophage depletion abolished DOPAC efficacy, confirming macrophage dependency.

Conclusions: KSS alleviates constipation through DOPAC-driven modulation of the gut microbiota-immune axis, highlighting a dual mechanism of microbiota restoration and macrophage polarization. These findings position KSS and DOPAC as novel therapeutic agents for functional gastrointestinal disorders.





ABSTRACT ID: RP 027

Title

The adaptation journey of children with Crohn's disease and their families to exclusive enteral nutrition: A longitudinal qualitative study informing nursing support

Authors

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ABSTRACT

Background: Exclusive enteral nutrition (EEN) is first-line therapy for pediatric Crohn's disease, yet adherence remains challenging. Longitudinal understanding of how children and families adapt over time is limited.

Objective: To explore the longitudinal adaptation process of children and families during the first two months of EEN and develop a model explaining divergent pathways.

Methods: A longitudinal qualitative study with 25 child-caregiver dyads interviewed at EEN start, 1 month, and 2 months (75 interviews). Analysis employed grounded theory principles through horizontal (within-timepoint), vertical (cross-timepoint), and integrative process approaches.

Results: Adaptation unfolded across three phases. Initial Resistance featured emotional aversion and family-enforced compliance. Active Adaptation (1 month) saw health-driven acceptance, coping strategies, and school support. The 1-2 month period emerged as a critical juncture leading to pathway divergence in the Integration or Crisis phase. Successful adaptation involved self-management internalization, peer support deepening, and meaning reconstruction; others faced adherence crisis from untreated taste fatigue and burnout. Seven interdependent dimensions—attitudinal, social support, self-efficacy, barriers, economic, treatment journey, psychological—evolved dynamically across phases.

Conclusion: Adaptation to EEN is a nonlinear, processual journey with a key transition at 1-2 months. The developed model explains change mechanisms and pathway divergence, informing dynamic, phase-specific nursing interventions to support integration and prevent crises.





ABSTRACT ID: RP 028

Title	Nutritional status and Feeding Pattern in Children with cerebral Palsy
Authors	Saroj Kumar Tripathy ¹ , Sarthak Das ¹ , Medhagopal. R.G. ¹
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ABSTRACT

Introduction: Patients with cerebral palsy (CP) frequently manifest oral ingestion problems ranging from mild to severe. These problems lead to the development of malnutrition in CP children.

Objective: The objectives of our study were to assess nutritional status, feeding patterns, and associated difficulties in children with Cerebral Palsy.

Methodology: A cross-sectional study was conducted between April 1, 2025, and 01 December 2025, at a tertiary-care teaching hospital in Eastern India among children aged 1 to 14 years diagnosed with cerebral palsy. Perceptions of parents regarding feeding patterns and difficulties were assessed using a structured questionnaire.

Results: Among the 330 study participants, 202 (61.2%) children were under 5 years of age, and 128 (38.8%) children were between 6 and 14 years of age. Constipation, seizure and pallor were observed in 146 (44.2%), 124 (37.6%), and 142 (43.0%) children, respectively. On reviewing parental perceptions, swallowing or chewing difficulties were observed in 43% of children. Underweight, wasting, and stunting were observed in 221 (67%), 65 (29.3 %), and 172 (52.1 %) of children with CP. Low birthweight ($p < 0.018$), seizure ($p < 0.001$), and GMFCS IV-V levels ($p < 0.007$) were significantly associated with moderate-to-severe feeding difficulties. In the regression analysis, only seizure was found to be independently associated with feeding difficulties ($p < 0.001$). Birthweight, constipation, seizure, pallor, and feeding difficulties were significantly associated with underweight.

Conclusion: The results of this study substantiated a higher proportion of malnutrition in CP. Significant feeding difficulties were reported in these children. Birthweight and seizure were important predictors of underweight.





ABSTRACT ID: RP 029

Title

Sex differences in oxidative stress and metabolic correlates of childhood obesity

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ABSTRACT

Background: Oxidative stress may play a role in the pathogenesis of obesity, yet its metabolic correlates and sex-specific patterns remain unclear in early childhood.

Methods: In a nested case-control study within the Shanghai Birth Cohort, oxidative stress was assessed at birth (cord blood oxidized low-density lipoprotein [oxLDL]) and at age 4 years (urinary 8-isoprostane) in 120 matched pairs of overweight/obese (OW/OB) and optimal-weight children, of whom 43 randomly selected pairs were further assessed by targeted urinary metabolomics (201 metabolites, UPLC-MS/MS). We evaluated oxidative stress-adiposity associations and explored metabolite profiles through differential analysis, pathway enrichment, and mediation analysis.

Results: Urinary 8-isoprostane was higher in OW/OB children and positively correlated with BMI z-score, body fat mass (BFM), and percent body fat in boys only ($r = 0.26-0.34$, all $P < 0.01$), with no associations in girls. We identified 47 differential metabolites, with pathway enrichment showing linoleic acid metabolism as the most altered pathway (impact = 0.75). In boys, 8-isoprostane was negatively associated with ricinoleic acid, 3-hydroxybutyrate, and 2-methylbutyrylcarnitine. Mediation analysis indicated that decreased ricinoleic acid accounted for 47% of the 8-isoprostane-BMI z-score and 78% of the 8-isoprostane-BFM associations in boys; no such patterns in girls. Cord blood oxLDL at birth was correlated with obesity-differential urinary metabolites at age 4, including melibiose, erythronic acid, and tauro- ω -muricholic acid.

Conclusions: In early childhood, oxidative stress is associated with adiposity through altered fatty acid metabolism in boys, with ricinoleic acid as a candidate sex-specific metabolite. Further studies are needed to clarify underlying mechanisms and causality.





ABSTRACT ID: RP 030

Title	Associations of Cord Blood Insulin-Like Growth Factors (IGF), IGF-Binding Proteins, Leptin, and Adiponectin Levels with Childhood Overweight/Obesity and Adiposity
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ABSTRACT

Background: Early-life metabolic programming may play a role in obesity pathogenesis. This study aimed to evaluate associations between cord blood metabolic biomarkers (IGFs, IGFBPs, leptin, adiponectin) and childhood overweight/obesity and adiposity at age 4 years.

Methods: In a nested case-control study of 120 pairs from the Shanghai Birth Cohort, cord plasma concentrations of IGF-1, IGF-2, IGFBP-1, IGFBP-2, IGFBP-3, leptin, total adiponectin, and HMW adiponectin were measured. Associations with obesity/overweight status and adiposity indicators (BMI z-score, body fat mass, percent body fat) at age 4 were assessed.

Results: Compared to optimal-weight children, overweight/obese children had higher cord blood IGF-1 (85.59 vs. 64.37 ng/mL, $p < 0.001$) and lower IGFBP-1 (59.27 ± 110.69 vs. 76.14 ± 124.15 ng/mL, $P = 0.03$), total adiponectin (33.36 ± 15.37 vs. 37.50 ± 16.09 μ g/mL, $P = 0.04$), and HMW adiponectin (16.81 ± 9.84 vs. 19.82 ± 12.19 μ g/mL, $P = 0.05$). Cord IGF-1 positively correlated with BMI z-score ($r = 0.19$, $p = 0.007$), while IGFBP-1 ($r = -0.19$, $p = 0.007$), IGFBP-2 ($r = -0.16$, $p = 0.03$), and HMW adiponectin ($r = -0.17$, $p = 0.02$) showed negative correlations. Adjusting for maternal and infant characteristics, each log-unit increase in cord blood HMW adiponectin was associated with a 0.30 (95% CI 0.03-0.57) decrease in BMI z-scores and a 0.54 kg (95% CI 0.02-1.06) decrease in body fat mass at age 4.

Conclusions: Cord blood IGF-1, IGFBP-1, and HMW adiponectin are associated with early childhood obesity/adiposity, suggesting these biomarkers may reflect fetal metabolic programming and represent potential early intervention targets.





ABSTRACT ID: RP 031

Title	Microbiota-Gut-Brain Axis in Autism Spectrum Disorders: Mendelian Randomization Analysis and Biological Annotation
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ABSTRACT

Introduction: GWAS of microbial data have highlighted significant host-microbiome interactions based on microbiome heritability.

Objectives: Establishing causal relationships between specific gut microbiota and autism spectrum disorder (ASD) .

Methods: We analyzed gut microbiota data from a GWAS involving 5,959 participants and ASD summary statistics from 46,351 individuals. The inverse variance-weighted method was employed as the primary bidirectional Mendelian randomization (MR) analysis. To ensure the robustness of our findings, we performed several sensitivity analyses. Additionally, a reverse MR analysis was conducted to explore potential reverse causation. Finally, single nucleotide polymorphisms were annotated using GWAS4D to identify genes associated with these genetic variants, and enrichment analyses were performed to investigate their biological functions.

Results: We discovered that 17 gut microbial taxa were causally related to ASD risk. Among them, class Fimbriimonadia, order Fibrobacterales, family Acetobacteraceae, family Planococcaceae, genus Saccharomonospora, species Prevotellamassilia, species Ruminococcus E sp900314705, species UBA5394 sp002409725, species Faecalibacterium pleomorphus, species V9D3004, and species Desulfovibrio piger were positively correlated with ASD. Conversely, genus Pandoraea, genus UBP9, species CAG-81 sp000435795, species GCA- 900066755, species Acidaminococcus fermentans, and species Bacillus U were negatively correlated with ASD. The robustness of these associations was confirmed through sensitivity analyses. Moreover, reverse MR analysis revealed that ASD was associated with species Desulfovibrio piger and species Bacillus U. Lastly, we identified 10 novel host-microbiome shared genes in ASD through biological annotation.

Conclusions: Overall, this study provides evidence supporting a potential causal relationship between gut microbiota and ASD risk while also uncovering novel host-microbiome shared genes relevant to ASD.





ABSTRACT ID: RP 032

Title

Efficacy and Safety of a Game-based Digital Therapeutic for Children with ADHD: A Prospective Single-Arm Pilot Study

Authors

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ABSTRACT

Introduction: Attention-deficit/hyperactivity disorder (ADHD) affects 5–7% of children globally. Pharmacological treatments are limited by adverse effects and poor long-term adherence. Game-based digital therapeutics (DTx) offer a promising adjunctive approach.

Objectives: This study aimed to evaluate the preliminary efficacy and safety of Focus Run, a novel DTx designed to improve core symptoms and executive function in children with ADHD.

Methods: This prospective single-arm pilot study enrolled 25 children aged 4–14 years. Participants completed a 4-week home-based intervention (25 min/day, 5 days/week). Outcomes were assessed at baseline and week 4, including the Swanson, Nolan, and Pelham Rating Scale (SNAP-IV), Weiss Functional Impairment Rating Scale (WFIRS), Behavior Rating Inventory of Executive Function (BRIEF), cognitive tests (DCT, BOKE STARS), and prefrontal hemodynamics via fNIRS during a Go/No-Go task.

Results: After the 4-week intervention, the SNAP-IV total score decreased significantly (mean reduction 7.96 points, $P < 0.001$, Cohen's $d = 1.17$), with the largest effect on inattention ($d = 1.30$). WFIRS and BRIEF domains improved ($P < 0.05$). DCT accuracy increased ($P < 0.001$). fNIRS showed enhanced Go trial accuracy ($P < 0.001$) without significant hemodynamic changes. Completion rate was 100%, mean adherence 110.6%, and parent satisfaction 72%. Three participants (12%) reported mild transient visual fatigue; no serious adverse events occurred.

Conclusions: This study demonstrated that Focus Run was safe and highly adherent in children with ADHD. Significant reductions in core symptoms and improvements in executive function were observed. These preliminary findings support further investigation of Focus Run as an adjunctive intervention in randomized controlled trials.





ABSTRACT ID: RP 033

Title

Risk Factors for Failure to Thrive in Children Aged 6 Months to 5 Years: A Case-Control Study at a Tertiary Care Hospital in North Central province of Sri Lanka

Authors

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ABSTRACT

Introduction: Failure to Thrive (FTT) refers to poor weight gain and growth in young children and continues to be a persistent public health concern in Sri Lanka, particularly in resource-limited settings. Biological vulnerability, socioeconomic disadvantages, infections, and suboptimal feeding practices contribute to growth faltering.

Objective: To identify and evaluate factors associated with FTT among children aged 6 months to 5 years attending a tertiary care hospital in the North Central Province of Sri Lanka.

Method: We carried out a hospital-based case-control study over a six-month period. Fifty-five children diagnosed with FTT were enrolled along with 132 controls selected through systematic sampling. Data were collected using a pretested interviewer-administered questionnaire and anthropometric assessments. Independent associations were determined by conducting descriptive statistics, chi-square tests, and multivariable logistic regression analysis.

Results: Small for gestational age (AOR=9.54; 95% CI: 3.10–29.36) was the strongest predictor of FTT. Low household income (AOR=3.40), recurrent infections within the previous six months (AOR=2.94), feeding difficulties (AOR=2.37), and delayed deworming (AOR=2.47) were independently associated with increased odds of FTT. Exclusive breastfeeding during the first six months was protective (AOR=0.39). The regression model demonstrated moderate explanatory power (Nagelkerke $R^2=0.47$).

Conclusion and Recommendation: FTT results from interconnected biological, socioeconomic, infection-related, and feeding determinants. Strengthening early identification of at-risk infants, promoting exclusive breastfeeding, improving infection prevention, and supporting vulnerable families are essential. Integrated, context-specific interventions are recommended to reduce growth faltering and improve child health outcomes.





ABSTRACT ID: RP 034

Title

Effect of vitamin E supplementation on oxidative stress levels in children infected with dengue virus in Sri Lanka: Pilot study

Authors

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ABSTRACT

Introduction: Dengue is an illness with lot of morbidity and mortality. Oxidative stress plays a key role in disease pathogenesis. Therefore, exogenous antioxidants could alleviate disease severity and improve recovery. This study aims to explore the effects of vitamin E in the outcome of Dengue Fever.

Methods: A cohort study was conducted at the University Paediatric Unit(treatment group) and a General paediatric ward(control group) at a tertiary care hospital for children in Sri Lanka. 35 children (5-14 years) with clinically suspected dengue infection within 84 h of onset of fever. The treatment group(n=27), received an age appropriate dose of vitamin E within 24 hours of admission. Controlled group(n=8) were given standard care. Haematological and biochemical parameters were assessed regularly. Serum Trolox equivalent antioxidant capacity(TEAC) was analysed using the ABTS assay.

Results: Progression to DHF and duration of leaking phase was lower in the treatment group (2 days, IQR 2-5 Days) compared to controls (3, IQR 3-5 days). Serum TEAC in the treatment group improved and was maintained during illness. Their serum uric acid also improved following supplementation, indicating its role as compensatory antioxidant. In the vitamin E group, serum TEAC showed non-significant positive correlation with uric acid ($r = 0.5238$, $p=0.1966$), WBC count ($r = 0.5714$, $p=0.1511$), calcium ($r=0.3810$, $p=0.3599$), and negative correlation with albumin ($r= - 0.6190$, $p=0.5364$).

Conclusion: Preliminary data shows that vitamin E supplementation has a beneficial impact on the outcome of dengue infection. Future studies with larger sample size should be carried out to validate the observed associations.





ABSTRACT ID: RP 035

Title

Application of ELISPOT in Diagnosing Pediatric Mycoplasma Pneumoniae Infection and Stratifying Disease Severity

Authors

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ABSTRACT

Objective: To evaluate the use of ELISPOT to detect IFN- γ release from PBMCs stimulated with P1 and CARDS Toxin, aiming to diagnose Mycoplasma pneumoniae (MPP) and differentiate disease severity, thereby supporting clinical diagnosis and treatment decisions.

Methods: From May 2024 to May 2025, children aged 3–18 years hospitalized for community-acquired pneumonia in the Children's Hospital of Soochow University, and age-matched healthy children were enrolled. PBMCs were collected and stimulated with P1 or CARDS Toxin. IFN- γ spot formation was quantified, and comparisons were made between MP-infected and healthy children, as well as between mild and severe MP cases.

Results: Among 118 children with community-acquired pneumonia, 9 had severe MPP and 23 had mild MPP. Using P1 and CARDS Toxin stimulation, ELISPOT results were negative in all non-MP patients, indicating high specificity. Among the 32 PCR and IgM double positive MPP cases, corticosteroid and antibiotic treatments did not affect the judgment of the severity of MPP ($P > 0.05$). Both P1 and CARDS Toxin stimulation induced detectable IFN- γ spots. Both of P1 and CARDS Toxin-stimulated ELISPOT data between mild and severe MPP cases showed significant difference ($P < 0.05$). Notably, the AUC (0.950) of CARDS Toxin is higher than the AUC (0.795) of P1.

Conclusions: ELISPOT assay following stimulation with P1 and CARDS toxin is effective in diagnosing MPP and stratifying disease severity, irrespective of previous medication use. Integration of MP-ELISPOT results with clinical data may better guide clinicians in assessing disease severity and optimizing treatment strategies.





ABSTRACT ID: RP 036

Title

A Closed-Tube PCR-Invader Assay for Rapid, Low-Cost Detection of Six Major Pediatric Enteric Pathogens

Authors

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ABSTRACT

Introduction: Infectious diarrhea remains a leading cause of childhood morbidity. Current diagnostic approaches—including stool culture and immunoassays—are time-consuming, lack sensitivity, or require separate tests for different pathogens. Although qPCR offers speed and sensitivity, dye-based methods lack specificity, while probe-based assays are costly for multiplex detection.

Objectives: To develop a novel, closed-tube assay that integrates PCR amplification with Invader-based sequence-specific detection for rapid, low-cost identification of six major pediatric diarrheal pathogens.

Methods: We designed a two-stage, high-annealing-temperature PCR protocol that seamlessly couples amplification with Invader reaction in a single closed tube, eliminating the need for probe modifications. The assay targets *Shigella* spp., *Vibrio cholerae*, non-typhoidal *Salmonella*, *Campylobacter jejuni*, rotavirus, and enteric adenovirus (types 40/41). Analytical performance was evaluated using plasmid DNA and reference strains; clinical validation was performed on simulated and actual stool samples.

Results: The assay achieved a detection limit of 2 copies per reaction for each target, with no cross-reactivity. The entire process—from amplification to detection—was completed within 45 minutes in a closed-tube format on a standard qPCR instrument. By employing universal Invader probes, the per-test cost was reduced to approximately 2 RMB. Validation confirmed concordance with reference methods.

Conclusions: This PCR-Invader assay provides a rapid, low-cost, and contamination-free platform for the parallel detection of six major diarrheal pathogens. It offers a practical alternative to current disparate testing strategies, with strong potential for deployment in primary healthcare settings and large-scale screening to guide targeted therapy and reduce antibiotic misuse in childhood infectious diarrhea.





ABSTRACT ID: RP 037

Title

A Single-Center Study on the Epidemiology and Antimicrobial Resistance Analysis of Invasive Group A Streptococcus Infections in Children in Shenzhen

Authors

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ABSTRACT

Introduction: Invasive group A Streptococcus (iGAS) infections pose a significant threat to children's health. Despite effective antimicrobial therapy, increasing antimicrobial resistance (AMR) remains a global public health challenge. Emm typing system is crucial for epidemiological and resistance studies. Currently, China lacks a nationwide active iGAS diseases surveillance system, and relevant research remains scarce.

Objectives: This study analyzed the clinical characteristics, emm types, and antimicrobial resistance profiles of iGAS infections in children in Shenzhen, aiming to provide baseline data for establishing and refining China's active iGAS diseases surveillance system.

Methods: A retrospective analysis was conducted on 97 hospitalized iGAS infections cases admitted to Shenzhen Children's Hospital from January 2014 to June 2025. Minimum inhibitory concentration (MIC) for 8 antimicrobial agents was determined using the broth microdilution method for 37 iGAS isolates. Emm typing was performed by amplifying the emm gene via polymerase chain reaction (PCR).

Results: iGAS infection predominantly affected children aged 5-9 years, with a peak in winter. Case numbers rebounded rapidly after the COVID-19 pandemic. Soft tissue infection (57.7%) and pneumonia (36.1%) predominated. Predominant emm types were emm12 (45.9%) and emm1 (29.7%). Emm cluster typing was dominated by clade Y (86.5%), and emm pattern typing was dominated by pattern A-C (86.5%). Except for one isolate without stable MIC, all isolates were susceptible to penicillin and chloramphenicol, with 94.4% susceptible to levofloxacin. Resistance rates to erythromycin, azithromycin, clarithromycin, and tetracycline reached 77.8%.

Conclusions: This study provides essential baseline data for establishing and refining a nationwide active iGAS disease surveillance system.





ABSTRACT ID: RP 038

Title	Clinical Observation on 108 Cases of Multiple Palmoplantar Warts in Pediatric patients Treated with Xiancao Xiaoyou decoction Warm-hot Soaking
Authors	Shengyuan Hua ¹ , Qiufang Qian ¹ , Jia Zhang ²
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ABSTRACT

Objective: To explore the curative effect of Xiancao Xiaoyou Recipe with warm soaking in the treatment of multiple palmoplantar warts in children.

Methods: A total of 108 pediatric patients with multiple palmoplantar warts who were treated in Shanghai Children's Hospital from October 2021 to September 2022 were included and divided into a treatment group (n=54) and a control group (n=54). The patients were treated with Xiancao Xiaoyoufang warm soaking method, and the control group was treated with liquid nitrogen freezing method for 4 months and 8 courses of treatment. Observe and analyze the general information of the patients, the overall condition and clinical efficacy before treatment and after the end of all courses of treatment.

Results: After treatment, the thickness of the target skin lesion, the degree of pain and the total effective score in the treatment group were lower than those in the control group ($P < 0.05$). The markedly effective rate (14.8%) and cure rate (74.1%) in the treatment group were higher than those in the control group (1.9% and 66.7%) , the total effective rate (100%) was higher than that in the control group (87.0%) , and the average curative effect index was significantly higher than that in the control group ($P < 0.05$).

Conclusion: The traditional Chinese medicine Xiancao Xiaoyou Recipe is better than liquid nitrogen freezing in the treatment of multiple palmoplantar warts in children, and the treatment is simple and safe, and has strong clinical promotion value.





ABSTRACT ID: RP 039

Title

Analysis of Pathogen Distribution and Epidemiological Characteristics of Hospitalized Children with Acute Lower Respiratory Tract Infection in Suzhou (2022–2024)

Authors

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ABSTRACT

Objective: To analyze the pathogen distribution and epidemiological characteristics of hospitalized children with acute lower respiratory tract infection (ALRT) in Suzhou.

Methods: A retrospective analysis was performed on 0-18-year-old ALRT inpatients admitted between January 2022 and December 2024. Nasopharyngeal swabs were collected for respiratory pathogen detection.

Results: Of 30,048 specimens, 80.37% tested positive for ≥ 1 respiratory pathogen. *Mycoplasma pneumoniae* (30.22%), human rhinovirus (25.05%), and human respiratory syncytial virus (13.44%) constituted the three most prevalent pathogens, with HRV+MP co-infection accounting for 28.4%. For age-specific distribution: HRSV prevailed in infants <6 months (31.82%) and 6~12 months (28.35%); HRV was the most prevalent in children 1~3 years (28.22%) and 3~6 years (29.83%); MP reached its highest detection rate (54.14%) in those ≥ 6 years. The overall pathogen detection rate exhibited a significant upward trend (2022: 70.98%; 2023: 80.90%; 2024: 82.54%; $\chi^2=210.041$, $P < 0.001$). The co-infection rate in 2022 (14.97%) was significantly lower than that in 2023 (27.12%) and 2024 (23.74%). Detection rates of H1N1, HRSV, and MP were notably higher in 2023–2024 than in 2022. HRSV peaked in winter-spring in 2022 and 2024, with high detection rates also observed in summer-autumn 2023; the H1N1 epidemic peak shifted notably from winter in 2022 and 2024 to spring in 2023.

Conclusion: Following non-pharmaceutical intervention (NPI) withdrawal, pathogen detection rate and co-infection proportion in hospitalized ALRT children increased. H1N1, HRSV, and MP epidemic intensity rebounded with peak shifts. Continuous dynamic surveillance of respiratory pathogen epidemiology and timely adjustment of preventive strategies are imperative.





ABSTRACT ID: RP 040

Title

Epidemiological Analysis of Group A Streptococcus Isolates from Shenzhen Children's Hospital, 2016–2020, Using the emm Cluster and emm Pattern Typing Systems

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ABSTRACT

Objective: In China, understanding and research on emm cluster and emm pattern typing of GAS remain insufficient. Therefore, this study aims to investigate the epidemiological characteristics of emm cluster and emm pattern typing in Chinese Group A Streptococcus (GAS) isolates.

Methods: We analyzed 466 GAS isolates from Shenzhen Children's Hospital (2016 - 2020) using emm pattern and emm cluster typing systems.

Results: Results showed emm12 was the most prevalent pattern (56.2%), followed by emm1 (29%). Among emm clusters, A - C3 and A - C4 were most prevalent (85.2%). The A - C pattern was most common in emm pattern analysis (91.6%). For invasive diseases, skin and soft tissue infections were most prevalent (35%), and for non - invasive diseases, OSAS and scarlet fever were predominant (72.5%). There were significant correlations between different emm cluster subtypes and GAS - caused non - invasive infections. E6 and A - C5 subtypes correlated with OSAS in non - invasive diseases, and A - C4 branch was associated with skin and soft tissue infections in invasive diseases. Only A - C and E types in emm patterns were significantly associated with OSAS in non - invasive disease. The theoretical coverage rate of the 30 - valent M protein vaccine for Shenzhen - isolated GAS strains reached 98.3% (95% CI, 97.1–99.3%).

Conclusion: This study provides epidemiological information on GAS emm cluster and emm pattern typing in Shenzhen Children's Hospital.





ABSTRACT ID: RP 041

Title	Application value of urinary metabolic markers in the disease diagnosis and condition assessment of mitochondrial short-chain enoyl-CoA hydratase 1 deficiency
Authors	Yang Liu ¹
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ABSTRACT

Background: Mitochondrial short-chain enoyl-CoA hydratase 1 deficiency (ECHS1D) is an inborn metabolic disorder caused by biallelic variants in the ECHS1 gene. Although five urinary metabolites—SCPCM, SCPC, SCECM, SCEC and 2,3DH2MB—were identified at the time of the initial disease report, their diagnostic utility and relationship with disease severity are not well established.

Methods: We conducted a retrospective study of 73 patients with genetically confirmed Leigh syndrome, including 38 with ECHS1D (case group) and 35 with other genetic causes (control group). Diagnostic performance of each metabolite was evaluated using receiver operating characteristic curves. A multivariate logistic regression was conducted to construct a diagnostic prediction model.

Results: According to the current laboratory's cut-off value, urinary 2,3DH2MB and SCPCM both exhibited high sensitivity (92.1%), but the specificity of 2,3DH2MB was only 28.5%. In contrast, urinary SCPCM and SCPC showed high specificity, with SCPC reaching 90%. ROC analysis revealed that SCPC had the highest diagnostic efficacy (AUC = 0.902), followed by SCPCM, SCECM, and 2,3DH2MB. Urinary SCEC showed no diagnostic value. The final prediction model, incorporating SCPC, SCPCM, and SCECM, achieved an AUC of 0.964 (95% CI: 0.917–1.000), with good calibration and clinical utility. Except for SCEC, elevated levels of 2,3DH2MB, SCPCM, SCPC, and SCECM were significantly correlated with greater disease severity.

Conclusion: Urinary SCPC, SCPCM, and SCECM serve as valuable diagnostic biomarkers for ECHS1D, and their combined application optimizes diagnostic performance. We recommend incorporating these metabolites into routine metabolic screening for LS.





ABSTRACT ID: RP 042

Title

Round Biotinidase Deficiency as a Treatable Cause of Pediatric Diffuse Leukoencephalopathy and Diffusion Restriction

Authors

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ABSTRACT

Objectives: Diffuse leukoencephalopathy with diffusion restriction is a rare but reversible radiological pattern associated with Biotinidase deficiency (BTD). We aimed to describe clinico-radiological profile of children with genetically confirmed profound BTD presenting with diffuse leukoencephalopathy and diffusion restriction, and to compare findings with similar cases reported in the literature.

Methods: Consecutive children attending the pediatric neurology clinic were evaluated for early-onset seizures, developmental delay, respiratory symptoms, and encephalopathy. Clinical, biochemical, genetic, neurophysiological, and magnetic resonance imaging findings were analysed. Whole exome sequencing confirmed BTD gene variants. A systematic PubMed search and literature review were conducted using specified MeSH terms to identify similar cases.

Results: Three male children from two families were evaluated. All cases had early-onset seizures, developmental delay had profound biotinidase deficiency on enzyme analysis. Stridor was noted in two cases. Genetic analysis identified two pathogenic BTD variants: homozygous, frameshift deletion (c.38_44delinsTCC; p.Cys13PhefsTer36), and another homozygous, nonsense variant (c.946C>T; p.Gln316Ter). Neuroimaging revealed diffuse leukoencephalopathy with intense diffusion restriction in all, which reversed completely with biotin supplementation. Seizures and encephalopathy resolved while optic neuropathy progressed despite treatment. Literature review identified 13 additional cases with diffusion restriction and all of them had an early presentation.

Conclusions: Profound BTD may present with diffuse leukoencephalopathy and diffusion restriction, mimicking neuroinflammatory or degenerative conditions. This reversible metabolic disorder should be considered in the differential diagnosis of pediatric white matter disorders. Early diagnosis and biotin supplementation are crucial for neurological recovery although optic and auditory neuropathy may progress despite treatment.





ABSTRACT ID: RP 043

Title

Adolescent Idiopathic Scoliosis of children - A descriptive study to assess prevalence, associations, co-morbidities and the accuracy of non-radiological screening methods of children in selected government schools of Colombo district, Sri Lanka

Authors

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ABSTRACT

Adolescent idiopathic scoliosis (AIS) is the most prevalent form of paediatric spinal deformity which may result in curve progression, functional limitation, and adverse long-term outcomes if undetected. Early detection through screening may facilitate timely interventions and improved long-term outcomes.

Study aimed to determine the prevalence, associated factors and comorbidities of AIS, and to evaluate the feasibility and accuracy of combined Adam's Forward Bend Test (FBT) and scoliometer screening.

A descriptive cross-sectional study was conducted among 324 students aged 11–15 years, selected using multi-stage cluster sampling from government schools in the Colombo district. Children with known congenital or secondary causes of scoliosis were excluded. Screening included an interviewer-administered questionnaire. Assessment done thorough physical examination, nutritional assessment, leg length measurement, FBT and scoliometer measurement, with a spinal inclination angle >6° considered positive. Data were analyzed using SPSS version 21.

The mean age was 12.25±1.5 years; 55% were males. AIS prevalence, defined by combined positive FBT and scoliometer findings, was 4.3%. Positive scoliometer readings were observed in 4.9%, while 6.2% demonstrated positive FBT findings. AIS was significantly associated with lower body mass index ($p=0.034$), reduced exercise tolerance ($p=0.02$), and discontinuation of sports activities ($p=0.04$). Significant clinical indicators included shoulder elevation, scapular prominence, waist fold asymmetry, rib prominence, and increased thoracic kyphosis ($p<0.05$). No significant associations were observed with back pain, psychological symptoms, leg length discrepancy or respiratory complaints.

The combined use of FBT and scoliometer improved screening accuracy compared to either method alone, demonstrating feasibility and cost effectiveness in resource-limited settings.





ABSTRACT ID: RP 044

Title

First Aid Knowledge, Attitudes and Practices Among Teachers of Early Childhood Development Centers in Central Province, Sri Lanka: A Mixed-Method Study

Authors

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ABSTRACT

Background: Childhood injuries are a major cause of mortality in Sri Lanka, and children aged 2–5 years are particularly vulnerable while attending Early Childhood Development Centers (ECDCs).

Objective: This study aimed to assess first aid knowledge, attitudes and practices, and to identify barriers among ECDC teachers in the Central Province. **Methodology:** This descriptive cross-sectional study included 374 ECDC teachers in Central Province, Sri Lanka, selected via stratified random sampling. Data were collected using a self-administered online questionnaire and analyzed with SPSS 26.0, using Chi-square tests ($p < 0.05$). Three district-wise focus group discussions were also conducted and analyzed thematically.

Results: females constituted 97.9% ($n=323$) of the participants, with a mean age of 40.4 ± 9.63 years. Nearly half (53%, $n=175$) and over two-thirds (66.4%, $n=219$) had good knowledge and attitude toward first aid, respectively. 86% of the teachers, who encountered a child in need of first aid gave first aid, but the practices were not in line with the recommended standards. Working experience ($p < 0.001$), number of past first aid training ($p < 0.001$), and last first aid training time ($p=0.002$) were statistically significant with knowledge of first aid. Lack of updated knowledge, training, resources, teachers, and parental attitudes and child reactions towards first aid were identified as barriers to practicing first aid through the thematic analysis.

Conclusion: Teachers of ECDC had inadequate knowledge and favorable attitudes towards first aid. Strengthening structured, regular first aid training within teacher programs may improve knowledge, attitudes, and safe practices in ECDCs.





ABSTRACT ID: RP 045

Title

Six-minute walk test in apparently healthy children: a prospective observational study

Authors

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ABSTRACT

Introduction: The 6-minute walk test (6MWT) is a simple and widely used clinical assessment tool to measure an individual's functional capacity and exercise tolerance. While there have been numerous studies in Caucasian population, only few studies have been done in Indian population and those too, mostly in older children.

Objectives: To determine the normal reference values for the 6MWT of healthy children aged between 4–14 years old.

Methods: This prospective observational study was conducted over two-year period in a tertiary care teaching hospital from Eastern India. The 6MWT was performed as per the ATS guideline. Normative data for 6MWT was derived. The sample size was calculated as 400. The study was approved by the institute ethics committee, and parental consent was obtained.

Results: A total of 400 children (male = 193; rural population = 44%) were included in the study. The mean (SD) 6MWD (6-minute walking distance) was 365.3 (101.67) m. There was a positive correlation between the 6MWD and age ($r^2=0.58$, $p=0.001$), height ($r^2=0.58$, $p=0.001$), weight ($r^2=0.50$, $p=0.001$), and BMI ($r^2=0.28$, $p=0.001$), but not with the gender ($p=0.14$). The mean (SD) change in heart rate (Δ HR) was 23 (21) per minute, systolic blood pressure (Δ SBP) was 4 (7) mmHg, diastolic blood pressure (Δ DBP) was 5 (6) mmHg, and SpO₂ fall (Δ SpO₂) was 0 to 2%.

Conclusions: This study provides normal values for the 6MWT in Indian children. The mean (SD) 6MWD was 365.3 (101.67) m.





ABSTRACT ID: RP 046

Title	Application effect of nursing combined with white noise intervention under stress adaptation theory in NICU premature infants
Authors	QU Weiliang ¹
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ABSTRACT

Objective: To explore the effect of nursing combined with white noise intervention under stress adaptation theory in NICU premature infants.

Methods: A total of 120 premature infants in our NICU from November 2024 to March 2025 were randomly divided into control group and observation group, with 60 cases in each group. The control group received routine nursing, while the observation group received nursing combined with white noise intervention under stress adaptation theory. Comfort, sleep quality, and growth and development were compared between the two groups.

Results: The simplified COMFORT scale score in the observation group was higher than that in the control group ($P < 0.05$). The observation group had higher Infant Sleep Status Assessment Scale (ISAS) score and longer sleep time than the control group ($P < 0.05$). At 2 weeks after birth, body weight, length, and head circumference in the observation group were higher than those in the control group ($P < 0.05$).

Conclusion: Nursing combined with white noise intervention under stress adaptation theory can improve comfort and sleep quality, and promote growth and development in NICU premature infants.





ABSTRACT ID: RP 047

Title

Diagnostic and prognostic value of wavelet-based neurovascular coupling in neonates at risk for hypoxic ischemic encephalopathy: a multi-center prospective cohort study

Authors

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ABSTRACT

Background: Hypoxic-ischemic encephalopathy (HIE) remains a leading cause of adverse neurodevelopmental outcomes. While impaired neurovascular coupling (NVC) coherence has been observed in isolated cases of moderate-to-severe HIE, its broader clinical utility as an early prognostic biomarker for neurodevelopmental trajectories remains poorly defined.

Methods: In this large-scale, multi-center prospective cohort study, we enrolled at-risk term and near-term neonates (35–42 weeks gestation) across 29 tertiary hospitals in China (April 2024–May 2025). Participants underwent 6 hours of continuous, synchronized amplitude-integrated EEG (aEEG) and near-infrared spectroscopy (NIRS) monitoring, initiated within the critical first 6 hours of life. NVC coherence was quantified using wavelet transform analysis. Neurodevelopmental outcomes were evaluated at 6–12 months using the Bayley or Griffiths scales.

Results: We identified distinct, severity- and prognosis-dependent frequency patterns. NVC coherence in the 1.5–2 mHz band was significantly decreased in moderate-to-severe HIE. Interestingly, the 0.2–0.5 mHz range exhibited a biphasic response: decreasing in moderate-to-severe HIE but significantly increasing in mild cases. Crucially, reduced neonatal coherence in the 0.2–0.5 mHz band strongly correlated with adverse neurodevelopmental outcomes at 6–12 months.

Conclusion: Early NVC coherence profiling serves as a highly sensitive, non-invasive biomarker for stratifying HIE severity and predicting mid-term neurodevelopment. Frequency-dependent coherence signatures effectively differentiate profound NVC uncoupling in severe injury from active compensatory microcirculatory mechanisms in mild HIE.





ABSTRACT ID: RP 048

Title	Hemodynamic adaptation in neonates with early-onset severe anemia during transition period
Authors	Tiantian Xiao ¹ , Yiyong Fu ¹ , Biao Li ¹ , Jingyi Zhang ¹
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ABSTRACT

Background: To characterize hemodynamics in the first 24 h after birth in neonates with severe anemia.

Method: This was a retrospective analysis of data from a prospective cohort from our critically ill neonate database, that included neonates with severe anemia from December 2022 to June 2024. The results obtained from neonates with severe anemia and the control group were compared.

Results: A total of 21 neonates born at 37 [35.00, 38.00] weeks and weighing 2780 [2350, 3200] grams were included. Compared with the control group, we observed lower peak systolic myocardial velocity in biventricular (left: 5.67 [5.43, 6.48] vs. 6.6 [6.12, 7.32], $p < 0.001$; right: 6.33 [5.72, 7.48] vs. 8.02 [6.74, 8.86], $p < 0.001$). A greater ratio of the tricuspid valve early inflow velocity/early diastolic myocardial velocity was noted (6.63 [5.92, 9.27] vs. 5.31 [4.67, 6.55], $p < 0.001$). The peak systolic blood flow of middle cerebral arteries was greater (left: 55.90 [47.10, 64.90] vs. 44.95 [38.20, 50.95], $p = 0.008$; right: 52.00 [40.88, 56.15] vs. 45.20 [38.00, 52.00], $p = 0.048$). The lung ultrasound score was 18.00 [13.5, 25.5].

Conclusion: Neonates with severe anemia are characterized by reduced cardiac systolic function, reduced right diastolic function, increased cerebral blood flow, and pulmonary edema during the transition period.





ABSTRACT ID: RP 049

Title

Hemodynamic changes in neonatal hypoxic-ischemic encephalopathy requiring therapeutic hypothermia

Authors

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ABSTRACT

Introduction: This prospective observational study evaluated the hemodynamic changes in cardiac function and cerebral blood flow velocity (CBFV) in neonates with hypoxic-ischemic encephalopathy (HIE) requiring therapeutic hypothermia (TH).

Methods: Data were collected at five timepoints: pre-TH (T0), 0-24h of TH (T1), 24-48h of TH (T2), 48-72h of TH (T3), and within 24h post-rewarming (T4). Healthy neonates served as the control group (n=20).

Results: A total of 43 HIE neonates requiring TH were enrolled. The Left Ventricular Output was significantly lower compared to the control group at T1 and T2, and increasing from T1 to T4 (92.8 ± 29.5 ml/kg.min vs 103 ± 29.7 ml/kg.min vs 109.5 ± 28 ml/kg.min vs $144.5 \pm 34.4^*$ ml/kg.min (T4 vs T1, T2 or T3: $p < 0.05$). Systolic mitral annular velocity and systolic tricuspid annular velocity were lower compared to the control across T1 to T4 ($p < 0.05$). Middle cerebral arteries peak systolic flow velocities were increasing across T1 to T3 (PSV: T1 vs. T2, $p < 0.05$; T1 vs. T3, $p < 0.05$; T1 vs. T4, $p < 0.05$).

Conclusion: Regardless of the severity of HIE, the left cardiac output reduced but consistently increased over time in HIE neonates with TH. The trend of CBFV gradually increased throughout the TH and rewarming phase.





ABSTRACT ID: RP 050

Title

When brothers and sisters visit the Neonatal Intensive Care Units: Emotional experiences of Sri Lankan children Aged 5–8 Years

Authors

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ABSTRACT

Introduction: Sibling visits are restricted in Sri Lankan neonatal intensive care units (NICUs), although they promote bonding, reduce anxiety, and support emotional adjustment without increasing the infection risk within NICUs. Sibling visits were introduced after developing a structured protocol, staff training, and preparation of siblings before the visit.

Objective: To explore emotional reactions of siblings following NICU visits, with particular focus on illness-related and hospital-related distress. **Methods:** A qualitative descriptive study was conducted in two tertiary care NICUs in Sri Lanka from July to December 2025. Children aged 5–8 years visiting the NICU for the first time were included. Following the visit, the children were invited to produce drawings that represented their experience. The drawings were thematically analysed to identify emotional responses and patterns of meaning.

Results: Twenty-three siblings aged 5–8 years visited the NICU. Three mothers declined participation due to long-distance travel difficulties. Five themes were identified: understanding illness and separation, emotional distress, attachment to the neonate, positive hopes regarding reunion with the family, and emotional safety. Some children expressed mild anxiety related to illness and separation, but none showed fear of the NICU environment. Many drawings reflected affection and reassurance.

Conclusions: Sibling visits were well tolerated in this sample and did not result in observable emotional distress. The structured preparation process may have contributed to these positive responses. Although the sample size was limited and the findings cannot be generalised, this study provides preliminary evidence that sibling visiting in NICUs in Sri Lanka is feasible and emotionally acceptable.





ABSTRACT ID: RP 051

Title	Development of BPD Family Health Education Materials Based on Large Language Model: A Feasibility and Accuracy Validation Study
Authors	QinLin ¹
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ABSTRACT

Objective: To evaluate the feasibility of using Large Language Model (LLM) to generate family health education materials for bronchopulmonary dysplasia (BPD).

Method: Collect the 20 core issues that parents of children with BPD are most concerned about, and generate materials using GPT-4 based on the latest guidelines. Multidisciplinary experts evaluate the accuracy (Level 5 Likert) and reliability (DISCERN) of the content. 30 parents were randomly divided into two groups to read AI generated materials (intervention group) and traditional manuals (control group), and their readability (Flesch Kincaid), comprehension (PEMAT), and knowledge test scores were compared.

Result: The accuracy score of AI material is 4.63 ± 0.42 (out of 5), and the total score of DISCERN is 70.2 ± 4.8 . The readability level is 8.2 ± 1.3 grade, which is better than the traditional material's 10.5 ± 1.8 ($P < 0.01$). The comprehension (84.6% vs 76.1%) and operability (87.2% vs 79.5%) of PEMAT were significantly higher ($P < 0.05$). The knowledge test scores of the intervention group were significantly higher than those of the control group (86.7 ± 6.4 vs 78.3 ± 8.2 , $P < 0.01$). AI generation efficiency has increased by over 80%.

Conclusion: The BPD health education materials generated by LLM are accurate and easy to understand, can improve parents' knowledge mastery, and can be used as clinical auxiliary tools, but require professional review.





ABSTRACT ID: RP 052

Title	Latent ile Analysis of Family Resilience and Exploration of Influencing Factors Among Hospitalized Neonates
Authors	Guo Miao ¹ , Jiang Fengbi ¹ , He Xiaochun ¹ , Li Yun ¹
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ABSTRACT

Background: Family resilience helps families cope with adversity. Neonates in closed NICU experience parent-nfant separation, leading to parental role difficulties, negative emotions, financial burden, and impaired family functioning. Research on family resilience in this population remains limited.

Objective: This study explores the profiles and influencing factors of family resilience among hospitalized neonate families to support targeted interventions.

Methods: A cross-sectional study with convenience sampling was conducted in two tertiary Grade A maternal and child health hospitals in Sichuan Province from Dec 2023 to May 2024. 301 parents of hospitalized neonates were surveyed with relevant questionnaires; Mplus 8.3 was used for LPA of family resilience, and SPSS 27.0 for statistical analyses and multinomial logistic regression to explore influencin factors.

Results: The total score of family resilience among families of hospitalized neonates was 54.17 ± 5.04 . Three latent profiles were identified: moderate commitment-low control (36.6%), high family resilience (8.6%), and low commitment-low challenge (54.8%). Multinomial logistic regression showed that educational level (high school/technical secondary school or below), monthly per capita family income (<2000 RMB), FAD-GF score, and SSRS score were influencing factors of latent profiles of family resilience ($P < 0.05$).

Conclusion: Family resilience in hospitalized neonate families is moderate and heterogeneous, with three profiles identified. More than half were in the low commitment-low challenge group. Targeted screening, communication, psychological support, economic assistance, and family counseling should be provided to enhance family function and resilience.





ABSTRACT ID: RP 053

Title	Construction and Application Effect of the Hospital-Community-Family Collaborative Artificial Intelligence Follow-up System for Preterm Infants
Authors	Wang Li ¹
Affiliations	¹ Third Hospital of Shanxi Medical University, Shanxi Bethune Hospital, Shanxi Academy of Medical Scie, China

ABSTRACT

Introduction: Preterm infants face risks of growth retardation and readmission after discharge, yet traditional follow-up models suffer from poor compliance and insufficient multi-sector coordination.

Objective: To develop a hospital-community-family artificial intelligence (AI) follow-up system for preterm infants and evaluate its effectiveness.

Methods: A questionnaire based on the Capability–Opportunity–Motivation–Behavior (COM-B) model was first administered to 202 parents of preterm infants from three tertiary hospitals (Sept–Nov 2024) to analyze follow-up behaviors and influencing factors. Based on these findings, an AI-driven follow-up system was developed. Subsequently, 146 preterm infants discharged from Shanxi Bethune Hospital (Dec 2024–May 2025) were randomly assigned to a control group (conventional follow-up, n=73) or an intervention group (AI system application, n=73). Parental knowledge, parenting stress, infant follow-up rates, growth parameters, Gesell developmental scores, and 6-month readmission rates were compared.

Results: The AI system comprised three modules (capacity building, communication/support, motivation enhancement) with 12 functions. Parents in the intervention group demonstrated significantly higher knowledge and skill scores and lower parenting stress than those in the control group ($P < 0.05$). Infants in the intervention group showed better growth outcomes, higher neurobehavioral scores at corrected age of 6 months, and lower readmission rates ($P < 0.05$).

Conclusion: The hospital–community–family integrated AI follow-up system improves parental competence and infant developmental outcomes, providing an effective model for continuity of care in preterm infants.





ABSTRACT ID: RP 054

Title	Evidence-Based Practice for the Prevention and Management of PICC Secondary Catheter Tip Malposition in Neonates
Authors	Wang Li ¹ , GU Meibian ¹
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ABSTRACT

Introduction: Peripherally inserted central catheters (PICC) are widely used in neonatal intensive care units (NICUs) for long-term intravenous therapy, but catheter tip malposition is a common complication that can lead to severe outcomes such as phlebitis, thrombosis, pleural effusion, and even pericardial tamponade. Although evidence-based guidelines for preventing and managing PICC tip malposition exist, clinical implementation remains limited due to poor evidence translation, low adherence, and inconsistent management processes.

Objective: To develop an evidence-based practice protocol for the prevention and management of PICC tip malposition in neonates and evaluate its effectiveness.

Methods: Guided by the Knowledge-Action Framework, this study screened and selected 29 best pieces of evidence through a Delphi expert consultation process. Baseline audits were conducted on 38 neonates and 29 nursing staff from May to September 2024. Knowledge and practice gaps were identified using a questionnaire and observational checklist. Barriers and facilitators were assessed based on the Consolidated Framework for Implementation Research (CFIR). An evidence-based practice protocol was developed considering these factors, followed by clinical implementation and evaluation between October 2024 and February 2025.

Results: Following the intervention, nurses' knowledge scores improved from 58.00 ± 14.55 to 78.45 ± 11.18 ($P < 0.05$), and the compliance rate with audit criteria increased significantly ($P < 0.05$). The incidence of PICC tip malposition decreased significantly ($P < 0.05$).

Conclusion: The evidence-based practice protocol significantly improved nursing knowledge, standardization of care, and reduced the incidence of PICC tip malposition in neonates, providing a practical model for clinical practice in NICUs.





ABSTRACT ID: RP 055

Title	Application of a Virtual Simulation System Based on Infant Sucking Dynamics Data in Neonatal Oral Assessment Training
Authors	Qin Lin ¹
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ABSTRACT

Objective: Neonatal oral sucking assessment is critical for managing feeding difficulties in the NICU, yet traditional training relies on subjective experience and lacks quantitative standards. This study aims to develop a virtual simulation system based on real infant sucking dynamics data and evaluate its effectiveness in nurse training.

Methods: A tongue mechanics model was constructed using sucking dynamics data from over 100 infants (sucking frequency, force curve, mandibular movement). A virtual simulation system was developed to replicate abnormal behaviors like immature sucking and uncoordinated swallowing. Forty NICU nurses were randomly assigned to either virtual simulation training (intervention) or traditional video teaching (control). Post-training comparisons included oral assessment accuracy, operational skill scores, and satisfaction.

Results: The intervention group demonstrated significantly higher oral assessment accuracy (91.3% vs. 78.5%, $P < 0.01$) and improved recognition of abnormal sucking patterns (88.6% vs. 74.2%, $P < 0.05$). Operational skill scores were also higher (87.4 ± 5.6 vs. 79.8 ± 6.3 , $P < 0.05$). 92.5% of trainees rated the simulation as clinically realistic, with training efficiency improved by 65%.

Conclusion: This virtual simulation system effectively enhances nurses' oral assessment skills, providing an objective, quantifiable tool for neonatal feeding difficulty training.





ABSTRACT ID: RP 056

Title	Validation of a Novel Simplified Formula (Gupta's formula) for Calculating Mean Airway Pressure in Neonates: A Cross-Sectional Study
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ABSTRACT

Introduction: Mean airway pressure (MAP) is central to oxygenation and lung recruitment in mechanically ventilated neonates. Conventional MAP calculation using standard formula is physiologically sound but requires inspiratory and expiratory time variables apart from pressures (PIP & PEEP), making bedside mental calculation impractical.

Objectives: Primary: To determine agreement between a 'novel simplified MAP formula (Gupta's formula)' and the 'conventional formula'. Secondary: To compare the 'novel simplified MAP formula' with 'ventilator-displayed MAP'. Methods: This cross-sectional study was conducted in a level-III NICU in western Rajasthan, India from Jan, 2025 till Jan, 2026 among neonates receiving pressure-controlled invasive ventilation. Neonates on high-frequency or volume-guarantee modes, with significant air leaks or chest tubes were excluded. Paired MAP measurements were recorded during stable ventilation using the 'conventional formula', 'novel simplified formula', and 'ventilator-displayed MAP'. Agreement was evaluated using Bland-Altman analysis.

Results: Ninety-nine neonates contributed 120 paired observations. Mean gestational age and birthweight was 33(3) weeks and 1889(947) grams respectively. Mean MAP was 8.74 ± 1.63 cmH₂O using the simplified formula and 8.37 ± 1.62 cmH₂O using the conventional formula. Mean bias was 0.37 cmH₂O with narrow limits of agreement (95%CI: -0.26 to 1.00 cmH₂O) and strong correlation ($r = 0.98$; $p < 0.001$). When compared with ventilator-displayed MAP values, the novel simplified formula demonstrated a mean bias of 0.38 cmH₂O (95% CI: -0.81 to 1.57 cmH₂O and strong correlation ($r = 0.91$; $p < 0.001$).

Conclusions: This is the first of its time-independent MAP formula which offers a rapid, bedsidefriendly estimate of MAP for routine neonatal ventilation management.





ABSTRACT ID: RP 057

Title

Group-based Trajectory Modelling and Interpretable Machine Learning to Identify Factors Associated with Neurodevelopmental Trajectories in Preterm Infants

Authors

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ABSTRACT

Objective: Preterm infants are vulnerable to neurodevelopmental impairments due to immature brain development. Early identification of developmental heterogeneity and key perinatal predictors is essential for timely intervention and improved long-term outcomes.

Methods: Preterm infants born at Tongji Hospital from July 2022 to March 2025 were included. Clinical data were collected during hospitalization, and developmental follow-ups were conducted at 3, 6, 9, and 12 months corrected age. Group-Based Trajectory Modelling (GBTM) identified neurodevelopmental trajectories. Six machine-learning models were constructed to predict trajectory categories, with performance evaluated by ROC curves and SHAP interpretation.

Results: A total of 509 infants who completed all follow-ups were analyzed. Two trajectories were identified: Catch-up (46.56%) and Stable (53.44%). The Catch-up group showed a marked increase in developmental quotient (DQ) from 87.12 to 103.36, while the Stable group increased from 106.02 to 109.91 over 3–12 months. The Random Forest model performed best (training AUC 0.991; validation AUC 0.916) and was selected as the final model. SHAP revealed seven key predictors: gestational age, caregiver age, caregiver experience, intracranial haemorrhage, hyperbilirubinemia, birth length, and caregiver education. Higher gestational age, absence of complications, birth length 40–45 cm, and caregivers aged 25–35 years with prior experience and higher education were associated with the Stable trajectory.

Conclusion: Preterm infants exhibit two neurodevelopmental patterns: Stable and Catch-up. Gestational age and caregiver characteristics strongly influence trajectories, emphasizing the importance of early risk stratification and family-centered developmental support.





ABSTRACT ID: RP 058

Title	The influence of vibration factors of different road conditions on the physiological state of neonates in transportation
Authors	Yi Lin ¹ , Jinxing Feng ¹ , Jingbo Jiang ¹ , Shaomin Su ¹ , Weimin Huang ¹
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ABSTRACT

Introduction: This study investigates whole-body vibration exposure and its physiological effects on neonates during inter-hospital road transport.

Objective: Vibration during transport may affect the health of patients and neonates may be particularly susceptible. However, little information is available in the literature regarding vibration during neonatal transport. In this study, the vibration of neonates transported by municipal roads and expressways was measured, and its correlation with the TRIPS scores of the transported neonates was tested.

Methods: A prospective cohort study was designed that included all neonates transported to the NICU of Shenzhen Children's Hospital. Comatose neonates with severe neurological conditions such as intracranial hemorrhage were excluded. The vibration was continuously measured at a frequency of 10 Hz during transport, and physiological status was assessed by TRIPS scores.

Results: A total of 71 neonates were enrolled, including 35 in the municipal roads group and 36 in the expressways group. The whole body vibration (WBV) of the municipal roads group was 1.07 (0.1398) m/s², and the WBV of the expressways group was 1.22 (0.1347) m/s², indicating a significant statistical difference between the two groups. There was no significant difference in TRIPS scores between the two groups.

Conclusion: The degree of vibration experienced by neonates during transport is significantly greater for those transported by expressways than those transported by municipal roads. The vibration data of both groups were higher than the adult health standard. There was no significant difference between the two groups in the effect of vibration on the physiological state of neonates.





ABSTRACT ID: RP 059

Title	Quantitative MRI of Lipid Content for Assessing Fetal Adipose Tissue Development and Brown-to-White Fat Conversion
Authors	Shuzhen Ma ¹ , Ming Kang ¹ , Yuchen Liu ¹
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ABSTRACT

Objective: Brown and white adipose tissues in different fetal regions undergo distinct developmental processes. This study aimed to quantitatively evaluate the fetal adipose tissue development of singleton fetuses.

Methods: A total of 42 non-diabetic singleton pregnancies across 28 and 38 gestational weeks (GW) were enrolled. Multi-echo water-fat separation (IDEAL-IQ) was performed and proton density fat fraction (PDFF) and apparent transverse relaxation rate (R2*) values were measured for multiple anatomical regions, including cheeks, occiput, underjaw, neck, back, thorax, abdomen, and thighs. Correlations with gestational age were analyzed, and analysis of covariance (ANCOVA) was conducted by grouping participants into early (28–31 GW), mid (32–34 GW), and late (35–38 GW) gestational stages.

Results: PDFF values in all fetal regions showed significant positive correlations with gestational age ($p < 0.05$). R2* values demonstrated region-specific patterns: no significant correlation was found for the back, while the cheeks showed a negative correlation; other regions showed significant correlations ($p < 0.05$). ANCOVA revealed significant differences in PDFF and R2* values across multiple regions among the early, mid, and late gestational groups ($p < 0.01$), indicating distinct stage- and region-specific characteristics of fetal fat deposition and iron metabolism.

Conclusion: This study demonstrated that fetal PDFF increases globally with GW, while regional R2* patterns may reflect aspects of metabolic maturation. A change in R2* around approximately 32 weeks in the fetal cheek region may be indicative of an early transition from brown- to white-like adipose tissue. These findings indicate that IDEAL-IQ could be a useful tool for exploring fetal fat development.





ABSTRACT ID: RP 060

Title	Aromatic Amino Acids Mediate the Association between Gestational Age and Childhood Blood Pressure: Modification by initial Breastfeeding
Authors	Jian Wang ¹ , Bowen Du ¹ , Hualin Wang ¹ , Xi Zhang ¹ , Bo Wang ¹ , Zhikang Xu ¹ , Tie Yang ¹ , Meng Wang ¹ , Xiaowen Wang ¹ , Sun Chen ¹ , Kun Sun ¹
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ABSTRACT

Background: Preterm birth is associated with elevated childhood blood pressure (BP), but underlying mechanisms and preventive strategies remain unclear.

Objectives: To investigate whether amino acids mediate the inverse association between gestational age (GA) and BP, and to assess how initial breastfeeding modulates this pathway.

Methods: Data from 67,246 mother-child dyads across three prospective cohorts (Shanghai Birth Cohort, Collaborative Perinatal Project, Avon Longitudinal Study) were analyzed using metabolome-wide association, multivariable regression, mediation analysis, meta-analysis, and restricted cubic splines.

Results: GA was inversely associated with systolic BP (SBP; pooled $\beta = -0.23$) and diastolic BP (DBP; $\beta = -0.11$). Phenylalanine (Phe) and tyrosine (Tyr) were positively associated with BP and inversely with GA. Phe and Tyr mediated 16% and 39% of the GA-SBP association, respectively. In breastfed infants, these mediation proportions decreased to 8% and 21%. Tryptophan mediated 9% (SBP) and 21% (DBP), and total aromatic amino acids mediated 25% (SBP) and 42% (DBP) of the BP-lowering effect of breastfeeding. Initial breastfeeding conferred greater prehypertension/hypertension risk reduction in preterm (ORs: 0.56/0.48) versus term infants (ORs: 0.81/0.79).

Conclusions: Aromatic amino acids mediate GA-associated BP elevation in children. Early breastfeeding mitigates this risk in preterm infants, suggesting a critical primary prevention strategy.





ABSTRACT ID: RP 061

Title	Neonatal Metabolic Signatures Link Maternal PFAS Exposure During Pregnancy to Altered Offspring Cardiac Development in Early Childhood
Authors	Bowen Du ¹ , Zhikang Xu ¹ , Hualin Wang ¹ , Kun Sun ¹ , Jian Wang ¹
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ABSTRACT

Background: Per- and polyfluoroalkyl substances (PFAS) are a class of endocrine-disrupting compounds. Prenatal exposure to PFAS has been linked to adverse cardiovascular health in offspring, though the underlying mechanisms remain unclear.

Objectives: This study aimed to examine the association between maternal PFAS exposure during pregnancy and offspring cardiovascular development, and to investigate potential metabolic mechanisms using newborn screening data. **Methods:** Within the Shanghai Birth Cohort (n=1,024), nine PFAS were measured in maternal plasma during the first trimester, and metabolites were analyzed from neonatal dried blood spots. Cardiovascular development was assessed by echocardiography at age 4. Associations among PFAS, cardiac outcomes, and neonatal metabolites were evaluated using metabolome-wide association studies (MWAS), a meet-in-the-middle approach, multivariable regression, and mediation analysis.

Results: Higher maternal PFAS concentrations were significantly associated with impaired cardiac structural development—including reduced ventricular wall thickness and mass—and diastolic dysfunction in offspring. PFDoA, PFBS, and PFHpA showed the most pronounced effects. Through the meet-in-the-middle analysis, five overlapping amino acids (glutamate, ornithine, aspartate, alanine, and pipecolic acid) were identified in the MWAS for maternal PFAS (PFDoA, PFOA, PFHpA, PFBS) and the MWAS for cardiovascular outcomes. Mediation analysis further indicated that the glutamate metabolism pathway plays a key role in this association.

Conclusions: Maternal PFAS exposure is associated with impaired cardiovascular development in offspring, potentially mediated through perturbations in amino acid metabolism, particularly the glutamate pathway. These findings highlight the role of metabolic dysregulation in PFAS-related developmental cardiotoxicity.





ABSTRACT ID: RP 062

Title	Ventricular Dysfunction After Permanent Pacemaker Implantation in Children
Authors	Deepanjan Bhattacharya ¹ , Narayanan Namboodiri ² , Krishna Kumar Mohanan Nair ² , Baiju S Dharan ²
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ABSTRACT

Background: Children (<18 years of age) requiring permanent pacemaker implantation (PPI) form a complex subset due to technical difficulties, higher prevalence of CHD and higher rates of reinterventions. Post-pacemaker ventricular dysfunction (VD) is seen in 10-15% but similar data is lacking from patients who underwent PPI below 18 years of age.

Aim: To study the incidence of VD in patients who have undergone PPI below 18 years of age, and to identify its predictors

Methods and Results: We retrospectively analysed 235 patients with a median age of implantation being 7 years. 43.4% underwent epicardial PPI, commonest indication being congenital CHB (50.2%) followed by post-operative CHB (28.1%). 65.5% underwent VVI implantation. 41.3% had associated CHD out of which VSD was commonest (20.6%). Over a median follow-up of 8 years, 6.38% developed VD, with younger age at implantation, maternal ANA positivity, post-operative CHB, associated CHD, systemic right ventricle and epicardial PPI being major predictors. 2.1% patients required hospitalization for heart failure, while 2 underwent upgradation to CRT. VD was associated with higher mortality (40% vs 1.5%, $p < 0.01$). There was no association of VD with the duration of pacing ($p=0.25$), the percentage of pacing ($p=0.25$) or number of chambers paced ($p=0.38$).

Conclusion: VD is seen in 6.38% of patients who underwent PPI below 18 years of age, over a median duration of 8 years, with major predictors being younger age at implantation, maternal ANA positivity, post-operative CHB, associated CHD, systemic RV, and epicardial PPI. Mortality was considerably higher in these patients.





ABSTRACT ID: RP 063

Title

Changing Trends in the Prevalence of Heart Failure Impairment in Children and Adolescents with Congenital Heart Disease Over Three Decades

Authors

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ABSTRACT

Introduction: Chronic heart failure (HF) is a major challenge for children with congenital heart disease (CHD). However, the global epidemiological burden and regional differences remain unclear.

Objectives: This study aimed to analyze the global, regional, and national disease burden trends of CHD-related HF in children and adolescents from 1990 to 2021.

Methods: The Global Burden of Disease 2021 dataset was analyzed to assess trends in children with CHD-related HF by sex, age group, socio-demographic index (SDI), region, and country. Decomposition analysis was employed to identify influencing factors. Bayesian Age-Period-Cohort and AutoRegressive Integrated Moving Average models were used to predict future trends.

Results: Global age-standardized prevalence rates (ASPRs) rose from 104 to 114 per 100,000, reaching 2.90 million cases in 2021. Globally, the number of cases and ASPRs increased across SDI regions, age groups, and types of HF, and were driven primarily by population growth and epidemiological changes. High-SDI regions had the highest ASPRs, but they declined over time, while lower SDI regions experienced rapid increases in ASPRs and number of cases. The global prevalence is predicted to continue rising, with the ASPRs for males and females increasing by 4.2–4.5% and 5.1–5.4%, respectively, by 2036.

Conclusions: The global burden of CHD-related HF in children has been increasing and although ASPRs were higher in high-SDI regions, the largest number of cases and most rapid increases were in low and low-middle SDI regions. Thus, targeted prevention and control strategies should be developed based on the specific conditions of each region.





ABSTRACT ID: RP 064

Title	Serum Folate and Hypertension in Children: Does the Association Differ Before and After Puberty?
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ABSTRACT

Introduction: Childhood hypertension poses a significant public health challenge with longterm cardiovascular implications. Although adult studies have linked serum folate (SF) to hypertension, the association in children remains unclear, particularly during the pubertal transition.

Objectives: To examine the associations between serum folate levels and hypertension in children before and after puberty. Method: Data from NHANES 2013–2020 were analyzed for children and adolescents with available blood pressure (BP) and SF measurements. Hypertension was diagnosed by the American Academy of Pediatrics guidelines (2017). Multivariable logistic regression and linear regression were conducted to estimate the associations of SF with hypertension and BP levels, with adjustment for age, gender, BMI, and homocysteine.

Results: A total of 3,110 children and adolescents were included, comprising 1,575(50.6%) boys, with a mean age of 12.3±2.9 years. A total of 1,637 participants were under the age of 13. The prevalence of hypertension was 6.2% in participants under 13, and 3.1% in those over 13. The median SF level was 48.7 (IQR: 36.5–63.0) nmol/L, with higher levels in participants under 13 than over 13 ($P < 0.05$). In participants under 13, higher SF levels were associated with lower systolic BP ($\beta = -0.65$, 95%CI : -1.05~-0.25 mm Hg). In group of over 13, increased SF levels were associated with a reduced of hypertension (OR=0.48, 0.29~0.79) and systolic BP ($\beta = -0.61$, -1.11~-0.11 mm Hg).

Conclusion: Higher SF levels were associated with lower systolic BP in children and adolescents. SF may play a protective role against hypertension after puberty.





ABSTRACT ID: RP 065

Title

Further evidence of CSPP1 intronic variant causing Joubert syndrome with developmental delay

Authors

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ABSTRACT

Joubert syndrome (JBTS) is a rare neurodevelopmental ciliopathy characterized by a distinctive "molar tooth sign" on brain MRI. CSPP1 (centrosome and spindle pole-associated protein 1) encodes a ciliary protein essential for ciliogenesis and centrosome function, with pathogenic variants causing Joubert syndrome 21.

We describe a 5-month-old JBTS patient with CSPP1 variants identified by trio whole-exome sequencing. The proband was identified to carry compound heterozygous variants in the CSPP1 gene: a previously reported maternal nonsense variant (c.3127C>T, p.R1043*) and a novel paternal deep intronic variant (c.1215-26A>G). This intronic variant was confirmed by reverse transcription-polymerase chain reaction (RT-PCR) analysis of patient-derived peripheral blood RNA and minigene assays in HEK293T cells, which demonstrated that c.1215-26A>G induces complete skipping of exon 10 (58 bp), resulting in a frameshift and premature termination codon. Clinical presentation included severe global developmental delay (Motor Development Index 0.3rd percentile, Mental Development Index 0.5th percentile), hypotonia, and classic molar tooth sign on MRI, consistent with JBTS21. Functional validation enabled reclassification of c.1215-26A>G from VUS to likely pathogenic according to ACMG guidelines.

These findings expand the mutational spectrum of CSPP1-related JBTS and provides diagnostic evidence through integrated computational prediction and experimental validation, underscoring the critical importance of functional studies for resolving deep intronic variants in clinical practice and genetic counseling for rare ciliopathies.





ABSTRACT ID: RP 066

Title	Application of Mixed Reality Technology Combined with the OSCE Model in Pediatric ECMO Nurse Training
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ABSTRACT

Objective: To explore the application efficacy of mixed reality (MR) technology integrated with the Objective Structured Clinical Examination (OSCE) model in the training of pediatric Extracorporeal Membrane Oxygenation (ECMO) nurses, thereby providing a training paradigm to enhance the professional competence of nurses specializing in pediatric ECMO care.

Methods: A total of 30 nurses who met the predefined inclusion criteria were randomly allocated to either the MR group or the conventional group, with 15 participants in each group. The conventional group received a one-week pediatric ECMO training program based on Case-Based Learning (CBL), utilizing conventional PPT lectures. In contrast, the MR group underwent a one-week pediatric ECMO training via a customized MR training platform. Posttraining, both groups were evaluated using the OSCE model, which included theoretical and practical operation assessments. Concurrently, A questionnaire was administered to collect data regarding satisfaction with the training mode, as well as overall feedback among nurses in both groups.

Results: Nurses in the MR group demonstrated higher scores in theoretical examinations and practical operation assessments .The questionnaire survey indicated that the nurses in the MR group had a higher level of satisfaction with the training mode,and demonstrated a more favorable response to the training than the nurses in the conventional group (all $P < 0.05$).

Conclusion: The integration of MR technology with the OSCE model effectively enhances nurses' theoretical knowledge, practical operational proficiency about ECMO.This approach represents a feasible, efficient, and innovative training method that holds substantial promise for widespread application in clinical pediatric nursing education. Children's Hospital Of Nanjing Medical University





ABSTRACT ID: RP 067

Title

Evidence-Based Skin Assessment and Management of Insulin Injection Sites in Children with Diabetes

Authors

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ABSTRACT

Purpose: To implement the best available evidence for the dermal assessment and management of insulin injection sites in pediatric diabetes patients and to evaluate the application's effectiveness.

Methods: Guided by the Evidence-Based Continuous Quality Improvement Model, following a systematic literature screening and quality assessment process, 12 publications were included (7 guidelines, 2 expert consensuses, 1 systematic review, 1 evidence summary, and 1 metaanalysis). From these, 24 best evidence recommendations were extracted across six key dimensions: pre-assessment preparation, assessment frequency, assessment content and methods, injection technique, injection site selection, and post-assessment management. The aggregated best evidence was translated into 24 audit criteria. A baseline audit was conducted, and facilitators and barriers were analyzed via SWOT analysis to guide practice changes. We compared the compliance rates with the audit criteria and the incidence of injection site complications (including subcutaneous fat hyperplasia, lipoatrophy, pain, bleeding, and bruising) before and after the evidence-based intervention. The chi-square test was employed for statistical analysis.

Results: Following the intervention, nursing staff's compliance with the evidence-based audit criteria significantly improved compared to the baseline level. The incidence of all documented complications—subcutaneous fat hyperplasia, lipoatrophy, pain, bleeding, and bruising—was significantly reduced. A statistically significant difference was specifically noted for 'bruising' ($\chi^2 = 4.444$, $P = 0.035$).

Conclusion: The application of best evidence for the dermal care of insulin injection sites in pediatric diabetes is effective in enhancing nursing guideline adherence, reducing the incidence of cutaneous complications, and improving overall disease management in children.





ABSTRACT ID: RP 068

Title

Multi-dose Evaluation of Pegylated Recombinant Human Growth Hormone (PEG-rhGH) in Children with Idiopathic Short Stature

Authors

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ABSTRACT

Introduction: Idiopathic short stature (ISS) is a common pediatric condition. While pegylated recombinant human growth hormone (PEG-rhGH) is a validated treatment, its efficacy and safety under varied dosing regimens in ISS patients remain unreported.

Objectives: This prospective, open-label, multicenter, randomized controlled trial (ChiCTR2400087245) evaluated the efficacy and safety of PEG-rhGH at different dosage levels in children with ISS.

Methods: This clinical trial planned to enroll 100 children with ISS meeting inclusion and exclusion criteria. After randomization, patients received treatment strategies with different drug doses (0.2, 0.25, or 0.3 mg/kg/week) and underwent continuous follow-up. Changes in height standard deviation scores (Δ Ht SDS) and various clinical and biochemical safety indicators were monitored pre-treatment and post-treatment to evaluate the efficacy and safety of different dosing strategies, aiming to explore more scientifically effective administration regimens.

Results: A total of 100 eligible children were enrolled, with no significant differences in baseline characteristics observed across dosage groups. A dose-response trend was observed at the 26-week follow-up, with greater increases in Δ Ht SDS at higher dosages (0.25 vs 0.2 mg/kg/week: LSM difference 0.12 [95% CI: 0.01 to 0.23], $P = 0.033$; 0.3 vs 0.2 mg/kg/week: LSM difference 0.17 [95% CI: 0.06 to 0.28], $P = 0.004$). Safety indicators, including IGF-1 levels, bone age, and glucose metabolism indicators, showed no significant differences among groups.

Conclusions: PEG-rhGH starting doses of 0.25 and 0.3 mg/kg/week demonstrated superior efficacy and safety in children with ISS. These findings provide clinical guidance for dose optimization of PEG-rhGH in ISS treatment.





ABSTRACT ID: RP 069

Title	Prevalence And Presentation of Extra-Intestinal Manifestations in Paediatric Inflammatory Bowel Disease; A Single Center Experience
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ABSTRACT

Introduction: Information on extra-intestinal manifestations (EIM) in paediatric inflammatory bowel disease (PIBD) in the Sri Lankan setting is limited.

Objectives: To describe the prevalence and presentation pattern of EIMs in a Sri Lankan PIBD cohort.

Methods: The Gastroenterology clinic of Lady Ridgeway Hospital has collected data on patients who receive care for PIBD. Data on 141 patients were analysed retrospectively.

Results: 50 patients (35.5%) suffered from EIMs. This was significantly higher than in other PIBD cohorts with published data (35.5% vs 16.7%, $p=0.000$). 64.0% of them (32/50) had a single EIM, while 36% (18/50) had multiple EIMs. The prevalence of Crohn's disease, ulcerative colitis, and inflammatory bowel disease-unclassified were 58% (29/50), 34% (17/50), and 8% (4/50), respectively. There was no significant difference compared to the population ($p=0.327$). The majority (60%, 30/50) were females, and the mean age was 9.20 years, which were not significantly different from the population ($p=0.511$ and $p=0.315$). Most prevalent EIMs were peripheral arthritis (12.0%, 17/141), hepatomegaly (10.6%, 15/141), and aphthous stomatitis (7.8%, 11/141). The prevalence of primary sclerosing cholangitis (PSC), sacroiliitis, erythema nodosum, pyoderma gangrenosum, and uveitis were 10.6%, 2.8%, 3.5%, and 2.1%, respectively. The most common 1st EIM in patients with multiple EIMs was aphthous stomatitis (22.2%, 4/18). Median time from disease diagnosis to the 1st EIM was 5.50 months (range 0.33-156).

Conclusions: The Sri Lankan PIBD cohort has a higher prevalence of EIMs compared to its global counterparts. The commonest EIM was peripheral arthritis; the fact that this is a single-center study remains a limitation.





ABSTRACT ID: RP 070

Title	Knowledge and Attitude on Infantile Colic Among Mothers of Infants Attending the Well Baby Clinic in a Tertiary Care Hospital
Authors	Hiruni Inamaluwa ¹ , Chamudi Oshani ¹ , Himesha Fernando ¹ , Gayani Premarathne ¹ , Hasala Karunadasa ¹ , Krishnapradeep Sinnarajah ¹
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ABSTRACT

Introduction: Infantile colic is a self-limiting condition characterized by excessive crying in otherwise healthy infants, often causing significant distress to families. Despite its common occurrence, local data on maternal knowledge and attitudes toward infantile colic remain limited.

Objectives: To assess the knowledge and attitudes regarding infantile colic among mothers of infants attending the well-baby clinic in a tertiary care hospital, to identify associated factors, and to compare findings between mothers of colicky infants and those without colic.

Methods: A descriptive cross-sectional study was conducted among mothers of infants attending the well-baby clinic at Teaching Hospital Peradeniya. Data were collected using an interviewer-administered, pre-tested questionnaire.

Results: The mean knowledge score was 3.46 ± 1.10 out of 6, suggesting a moderate understanding. Although 91.2% correctly identified colic as a non-serious condition misconceptions were common. 55.6% believed that breast feeding mothers should avoid certain foods, and only 30.4% identified overfeeding as a potential risk factor. Mothers with prior infantile colic experience showed a demonstrably higher knowledge score compared to those without ($p=0.023$). The mean attitude score was 21.46 ± 3.04 out of 30. While 72.7% expressed willingness to try remedies, 40% reported guilt feelings during colic episodes. Younger mothers (18-24 years), those with lower educational level, and lower household income showed markedly less favourable attitudes whereas mothers with prior colic experience demonstrated more positive attitudes ($p<0.05$).

Conclusions: Significant gaps exist in maternal knowledge and attitudes regarding infantile colic. Targeted educational interventions may improve coping strategies among mothers.





ABSTRACT ID: RP 071

Title	Targeted Temperature Management-Guided Transrectal Precision Mild Hypothermia Nursing Strategy for Gut-Brain Axis Protection in Hypoxic-Ischemic Brain Damage: A Mechanistic and Translational Study
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ABSTRACT

Objective: Therapeutic hypothermia is an established neuroprotective strategy for hypoxic-ischemic brain damage (HIBD); however, nursing-led temperature control pathways and their effects on intestinal barrier function remain insufficiently defined. This study aimed to develop a targeted temperature management (TTM)-guided transrectal precision mild hypothermia nursing strategy and evaluate its mechanistic and clinical value from a gut-brain axis perspective.

Methods: An integrated basic-to-clinical translational design was employed. Eighty male Sprague-Dawley rats were randomized into sham, normothermic HIBD, and transrectal mild hypothermia groups. HIBD was induced by bilateral common carotid artery ligation with hypoxic exposure. The hypothermia group received 12 hours of transrectal precision mild hypothermia using a self-developed cooling device with continuous 4 °C isotonic saline perfusion, followed by spontaneous rewarming. Intestinal barrier integrity was assessed by histopathology, bacterial translocation, and serum diamine oxidase (DAO) and D-lactate levels. Clinically, 37 mechanically ventilated children with HIBD were prospectively enrolled and treated with TTM-based transrectal mild hypothermia nursing protocol, with continuous monitoring of temperature control and safety outcomes.

Results: Transrectal mild hypothermia preserved intestinal mucosal integrity, reduced DAO and D-lactate levels ($P < 0.05$), and limited bacterial translocation in HIBD rats. Clinically, the mean cooling rate was 1.2 ± 0.8 °C/h, with stable temperature maintenance in 91.9% of measurements and controlled rewarming in 81.2% of patients. No malignant arrhythmias or refractory hypotension occurred.

Conclusion: A TTM-guided transrectal precision mild hypothermia nursing strategy enables effective, stable, and safe temperature control while protecting intestinal barrier function in HIBD, representing a nursing-driven translational approach targeting the gut-brain axis.





ABSTRACT ID: RP 072

Title	Allogeneic Hematopoietic Cell Transplant For Severe Congenital Neutropenia: A Single-center Experience
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ABSTRACT

Introduction: Severe congenital neutropenia (SCN) is caused by germline mutations, most commonly in ELANE, impacting neutrophil maturation and leading to high risk of life-threatening infections. Approximately 10% of patients have neutropenia refractory to G-CSF and require allogeneic stem cell transplant(AlloSCT).

Objectives: To explore the clinical experience and efficacy of AlloSCT in the treatment of SCN.

Methods: A retrospective analysis was performed on the clinical data of 8 children with SCN caused by ELANE or HAX1 gene mutation, who were diagnosed and treated in the Department of Immunology and Department of Hematology, Children's Hospital of Fudan University, Shanghai, from Dec 2014 to Oct 2025, and finally received AlloSCT.

Results: The patients were aged 8–120 months, including 3 females and 5 males. Three patients received umbilical cord blood with 7–9 human leukocyte antigen (HLA) matches, 2 received unrelated peripheral blood stem cells with 9–10 HLA matches, 1 received matched sibling peripheral blood stem cells, and 2 received haploidentical peripheral blood stem cells. All patients underwent myeloablative conditioning. Primary graft failure occurred in 2 patients, both of whom received umbilical cord blood. All other patients achieved complete donor chimerism. The median time to neutrophil and platelet engraftment was 13 and 12 days, respectively. Two patients developed grade 2–3 acute graft-versus-host disease, 2 patients had CMV reactivation, and 1 patient developed hemorrhagic cystitis. As of the last follow-up in January 2026, all patients were alive.

Conclusions: AlloSCT can achieve good efficacy in the treatment of SCN, and long-term prognosis requires further follow-up. Umbilical cord blood may not be a suitable donor.





ABSTRACT ID: RP 073

Title	Efficacy and Safety of Cidofovir for Adenovirus Infection in Pediatric Patients after Hematopoietic Stem Cell Transplant: A Single-Center Retrospective Study.
Authors	Anqi Zhou ¹ , Yixin ¹ , Jing ¹ , Yanhua ¹ , Yuxuan ¹ , Jun ¹ , Peifang ¹ , Jie ¹ , Junjie ¹ , Shaoyan ¹
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ABSTRACT

Introduction: Adenovirus (ADV) infection is a life-threatening complication following hematopoietic stem cell transplantation (HSCT). Cidofovir is the primary therapy; however, its use is often limited by nephrotoxicity, and real-world data in pediatric cohorts remain scarce.

Objective: This single-center retrospective study evaluated the efficacy and nephrotoxicity of cidofovir for ADV infection in pediatric HSCT recipients.

Methods: We retrospectively analyzed pediatric HSCT recipients who received cidofovir for ADV infection at our center between January 2021 and December 2025. The primary outcome was virological response, defined as a $\geq 2 \log_{10}$ reduction in ADV DNA load from baseline.

Results: A total of 23 pediatric HSCT recipients (17 males, 6 females) with a median age of 6.4 years (range, 1.0-16.4) were included. Primary diseases included acute leukemia (n=15), Wiskott- Aldrich syndrome (n=4), aplastic anemia (n=3), and Fanconi anemia (n=1). The median time from HSCT to ADV infection was 57 days (range, 3-370). Patients received a median of 3 doses of cidofovir (range, 1-5). Of the 23 patients treated with cidofovir, 19 had evaluable data on quantitative adenovirus DNA testing. Among these, 13 (68.4%) achieved a virological response, including 9 (47.4%) who achieved complete viral clearance. Four patients lacked virological follow-up: 3 showed clinical improvement, 1 progressed. Over a median follow-up of 5 months, no grade ≥ 2 nephrotoxicity was observed.

Conclusion: Cidofovir demonstrated a favorable safety profile with no significant nephrotoxicity when administered via a standardized short-course regimen. This therapy effectively reduced viral load and improved clinical outcomes in a subset of patients.





ABSTRACT ID: RP 074

Title	Clinical Impact of ABO Blood Group Incompatibility in a Large Pediatric Allogeneic Hematopoietic Stem Cell Transplantation Cohort
Authors	Guo Yibei ¹
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ABSTRACT

Background: Allogeneic hematopoietic stem cell transplantation (allo-HSCT) is a curative therapy for pediatric hematologic malignancies. ABO blood group incompatibility is common in pediatric transplantation because of limited donor availability, but its impact on survival outcomes and hematopoietic recovery remains controversial.

Objective: To compare transplantation outcomes between ABO-compatible and ABOincompatible allo-HSCT in children and to evaluate the effects of different types of ABO incompatibility.

Methods: We retrospectively analyzed pediatric patients with hematologic malignancies who underwent allo-HSCT at the Children's Hospital of Soochow University between October 2010 and January 2025. A total of 561 patients were included, comprising 298 ABO-incompatible and 263 ABO-compatible transplants. The primary outcome was overall survival (OS). Secondary outcomes included neutrophil and platelet engraftment, acute graft-versus-host disease (aGVHD), and viral reactivation, including Epstein–Barr virus (EBV) and cytomegalovirus (CMV).

Results: Among the 561 patients, there was no significant difference in 3-year OS between the ABO-compatible and ABO-incompatible groups ($P > 0.05$). The median time to neutrophil engraftment was shorter in the ABO-compatible group than in the ABO-incompatible group (12.7 [12.3–13.2] vs. 13.5 [13.0–14.0] days, $P < 0.05$). Median platelet engraftment time did not differ significantly ($P > 0.05$). The incidence of grade II–IV aGVHD was comparable between groups ($P > 0.05$), as were EBV and CMV reactivation rates ($P > 0.05$).

Conclusion: ABO compatibility was associated with earlier neutrophil engraftment, whereas ABO incompatibility did not adversely affect engraftment, major complications, or survival in pediatric allo-HSCT.





ABSTRACT ID: RP 075

Title	Establishment and validation of a risk prediction model for unplanned readmissions in children with hematopoietic stem cell transplantation: a prospective observational study
Authors	Xiaorong Pan ¹ , Xiaoli Guo ¹
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ABSTRACT

Introduction: Hematopoietic stem cell transplantation (HSCT) is a critical treatment for lifethreatening diseases in children, yet post-transplantation complications frequently lead to unplanned readmissions, placing a significant burden on families and healthcare systems.

Objective: To investigate the incidence and influencing factors of unplanned readmissions in children undergoing HSCT, and to develop and validate a risk prediction model.

Methods: This prospective study enrolled 307 children who underwent HSCT at a tertiary children's hospital in Chongqing between January 2023 and December 2025. Lasso regression was used for variable selection, and logistic regression identified independent predictors. A nomogram was constructed, and model performance was evaluated using the area under the receiver operating characteristic curve (AUC), Hosmer–Lemeshow test, and ten-fold crossvalidation.

Results: The incidence of unplanned readmissions was 23.13% (71/307). Independent predictors included conditioning regimen, STRONGkids score, systemic immune-inflammation index, GAD-2 score, Caregiver Preparedness Scale score, and Family Caregiver Task Inventory score (all $P < 0.05$). The model showed good discrimination (AUC = 0.866, 95% CI: 0.818–0.914), with a sensitivity of 77.5% and specificity of 79.7% at the optimal cut-off of 0.334. The Hosmer–Lemeshow test indicated good fit ($\chi^2 = 9.350$, $P = 0.314$). Calibration and decision curves demonstrated favorable clinical utility. Internal validation confirmed robustness (AUC=0.855, 95% CI: 0.787–0.924).

Conclusion: The developed prediction model effectively identifies children at high risk of unplanned readmissions after HSCT, offering potential to reduce readmission rates and improve outcomes.





ABSTRACT ID: RP 076

Title

Primary Versus Secondary Prophylactic Endoscopy in Children with Portal Hypertension: A Single Center Comparative Outcome Study

Authors

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ABSTRACT

Introduction: Upper gastrointestinal endoscopies are used for primary and secondary prophylaxis for variceal bleeding in paediatric portal hypertension.

Objectives: To analyse the differences of primary and secondary prophylactic endoscopies performed in children with portal hypertension, who receive care at the gastroenterology clinic of Lady Ridgeway Hospital for Children, Sri Lanka.

Methods: A retrospective analytical study was carried out among 184 children who received care for portal hypertension, using the clinic records. Data was analysed using SPSS version 25.

Results: Initial endoscopy was performed for primary prophylaxis in 78.4% and secondary prophylaxis in 21.6%, respectively. In the secondary group, 19.6% presented with haematemesis and 1.5% with melaena. The common presentations in the primary group were chronic liver cell disease (30.9%), splenomegaly (22.2%), and jaundice (6.2%). Presence of grade 3 varices ($p=0.000$), red signs ($p=0.002$), fundal varices ($p=0.004$) in the initial endoscopy was higher in the secondary group. The number of endoscopy procedures required in the last year (2.14 vs 1.39, $p=0.000$) was higher in the primary group. The mean number of emergency endoscopies in the last year (0.5 vs 1.3, $p=0.002$) and mean number of emergency endoscopic therapeutic interventions (0.29 vs 0.73, $p=0.021$) were higher in the secondary group.

Conclusions: The severity of portal hypertension is higher in the initial endoscopies indicated for secondary prophylaxis. The total number of endoscopies required in primary prophylaxis is higher due to frequent repeated elective endoscopies. Requirements for emergency endoscopic procedures and interventions are higher in secondary prophylaxis; performing endoscopies before gastrointestinal bleeding is recommended.





ABSTRACT ID: RP 077

Title

Long-term outcomes of MYO5B-associated cholestasis: association with genotypes and early serum bile acid levels

Authors

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ABSTRACT

Background and Aims: Because of the rarity of MYO5B-associated cholestasis there is limited understanding of its natural course and long-term outcomes. We aimed to provide insights by assembling cases from mainland China.

Methods: Patients with chronic intrahepatic cholestasis and biallelic MYO5B variants were retrospectively analyzed. Patients were categorized into two genotypes: MYO5B-1 (harboring at least one null variant) and MYO5B-2 (harboring no null variants). Null variants were defined as those predicted causing protein-truncation. Median serum total bile acid (TBA) levels within the first year of life were calculated.

Results: Thirty-seven patients were included with a median (interquartile range, IQR) follow-up of 7.4 (2.9-9.9) years. All developed jaundice, and 91.9% of them experienced pruritus at a median (IQR) age of 7.0 (5.0-12.0) months. Diarrhea was the most common extra-hepatic manifestation, usually transient. At the last follow-up, the native liver survival rate was 94.4%, with 58.8% of the patients achieving complete resolution of cholestasis and 41.2% reaching a medication-free state. Patients in the MYO5B-1 group had longer cumulative durations of cholestasis ($P = 0.004$) and lower rates of achieving complete resolution and reaching a medication-free status (23.8% vs. 60.0%, $P = 0.041$). Patients with an early TBA level $< 152.95 \mu\text{mol/L}$ were significantly more likely to achieve complete resolution (100.0% vs. 39.1%, $P = 0.004$). Maralixibat showed potential benefit in two MYO5B-1 patients.

Conclusions: MYO5B-associated cholestasis generally has favorable long-term native liver survival. Genotype and early-life TBA levels influence disease course and outcomes. Early intervention may improve prognosis.





ABSTRACT ID: RP 078

Title	Identification of the Factors Associated with Intraperitoneal Pressure in Pediatric Peritoneal Dialysis
Authors	He Hao ¹ , Shen Xia ¹ , Zhou Qing ¹
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ABSTRACT

Background: Intraperitoneal pressure (IPP) is a critical parameter for optimizing dialysis prescriptions in pediatric PD. However, existing measurement techniques often lack clinical feasibility, and clinical evidence regarding the factors associated with IPP in children remains limited in China.

Aim: This study aimed to develop and validate a non-invasive, closed-system device for IPP monitoring and to identify the relevant factors associated with IPP.

Methods: We initially developed a novel device and validated its feasibility and safety. Subsequently enrolled pediatric patients who underwent peritoneal dialysis at a tertiary specialized pediatric hospital in Shanghai. IPP was measured using Durand's method across a range of serial fill volumes (400 to 1400 ml/m²). Multivariable linear regression Models were utilized to identify factors associated with IPP.

Results: In the pilot validation (n=9), this device achieved 91.0% measurement success rate without incidence of catheter-associated adverse events. Vital signs including oxygen saturation, pulse rate, and respiratory rate remained within normal ranges for all patients, and pain scores were consistently zero. The subsequent retrospective study included 115 pediatric patients with a median (IQR) age of 6.0 (4.0–11.0) years. All pediatric patients demonstrated satisfactory compliance with the measurement process. Regression analysis identified fill volume indexed to BSA as a strong positive predictor of IPP (B=0.974, P<0.001). Furthermore, BMI was confirmed as a significant independent determinant (B=0.390, P<0.001).

Conclusion: The novel device demonstrates high clinical feasibility and safety for serial IPP monitoring in pediatric patients. Our study confirms that IPP is fundamentally driven by fill volume indexed to BSA and BMI.





ABSTRACT ID: RP 079

Title

Reduction of renal interstitial fibrosis by targeting Tie2 in vascular endothelial cells

Authors

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ABSTRACT

Background: Tie2, a functional angiopoietin receptor, is expressed in vascular endothelial cells and plays an important role in angiogenesis and vascular stability. This study aimed to evaluate the effects of an agonistic Tie2 signal on renal interstitial fibrosis (RIF) and elucidate the underlying mechanisms.

Methods: We established an in vivo mouse model of folic acid-induced nephropathy (FAN) and an in vitro model of lipopolysaccharide-stimulated endothelial cell injury, then an agonistic Tie2 monoclonal antibody (Tie2 mAb) was used to intervene these processes. The degree of tubulointerstitial lesions and related molecular mechanisms were determined by histological assessment, immunohistochemistry, western blotting, and qPCR.

Results: Tie2 mAb attenuated RIF and reduced the level of fibroblast-specific protein 1 (FSP1). Further, it suppressed vascular cell adhesion molecule-1 (VCAM-1) and increased CD31 density in FAN. In the in vitro model, Tie2 mAb was found to decrease the expression of VCAM-1, Bax, and α -smooth muscle actin (α -SMA).

Conclusions: The present findings indicate that the agonistic Tie2 mAb exerted vascular protective effects and ameliorated RIF via inhibition of vascular inflammation, apoptosis, and fibrosis. Therefore, Tie2 may be a potential target for the treatment of this disease.





ABSTRACT ID: RP 080

Title	Comparative Study of Serum Creatinine and Urine Output Criteria for Early Identification of Acute Kidney Injury in PICU
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ABSTRACT

Acute Kidney Injury (AKI) is a clinical syndrome characterized by an abrupt decrease in kidney function resulting in accumulation of waste products and critical fluid and electrolyte imbalances. KDIGO (Kidney Disease: Improving Global Outcomes) provides two sets of criteria to identify and classify acute kidney injury (AKI): serum creatinine (SCr) and urine output (UO).

Objectives: To assess the performance of the SCr and UO criteria for identification of AKI in the PICU and compare the standard SCr criteria to consistent, and easily measurable urine output parameter.

Materials and Methods: This is a prospective observational study that was conducted in the PICU of Department of Pediatrics, Dayanand Medical College and Hospital, Ludhiana. All patients between 1 month and 18 years admitted to PICU of a tertiary care center with >24 hours of stay were screened for AKI using the KDIGO classification with SCr and UO criteria.

Results: The study included 446 patients admitted to the PICU, out of which 116 (26%) developed AKI, classified into Group A: 97 cases (83.6%), diagnosed by both S. Cr and/or UO; Group B: 19 cases (16.3%) (UO only with normal serum creatinine); and C:330 cases (no AKI). Mean difference between time to detect AKI between UO and serum creatinine criteria was 8.46 hours, suggesting UO detected AKI approximately 8 hours earlier on average.

Conclusion: The study highlights the superior sensitivity of urine output as an early indicator of kidney dysfunction. This reinforces the KDIGO recommendation of using both parameters synergistically for diagnosis of AKI.





ABSTRACT ID: RP 081

Title

MEIS1 Targets Protein Tyrosine Phosphatase Receptor J in Fibroblast to Retard Chronic Kidney Disease Progression

Authors

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ABSTRACT

Renal fibrosis is a common pathological feature of chronic kidney disease (CKD) with the proliferation and activation of myofibroblasts being definite effectors and drivers. Here, increased expression of Meis1 (myeloid ecotropic viral integration site 1) is observed, predominantly in the nucleus of the kidney of CKD patients and mice, and negatively correlates with serum creatinine. Fibroblast-specific knock-in of Meis1 inhibits myofibroblast activation and attenuates renal fibrosis and kidney dysfunction in CKD models. Overexpression of Meis1 in NRK-49F cells suppresses the pro-fibrotic response induced by transforming growth factor- β 1 but accelerates by its knockdown. Mechanistically, Meis1 targets protein tyrosine phosphatase receptor J (Ptp α) to block renal fibrosis by inhibiting the proliferation and activation of fibroblasts. Finally, a new activator of Ptp α is identified through computer-aided virtual screening, which has the effect of alleviating renal fibrosis. Collectively, these results illustrate that the Meis1/Ptp α axis has therapeutic potential for clinically treating CKD.





ABSTRACT ID: RP 082

Title	Comparison of Tacrolimus Levels in Blood Samples Obtained from Central Catheter via Push-Pull Technique and Peripheral Venipuncture in Pediatric Kidney Transplant Patients
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ABSTRACT

Background: Kidney transplantation remains the gold standard therapy for paediatric endstage renal disease. Tacrolimus is the cornerstone immunosuppressant for preventing graft rejection. While peripheral venipuncture (VP) is the reference method for therapeutic drug monitoring (TDM), it proves challenging in paediatric patients due to compromised vascular access and limited cooperation. Repeated VP heightens the risk of trauma, haematoma, and infection. Conversely, central venous catheters (CVCs), routinely placed for post-operative care, offer a practical alternative to improve patient compliance.

Objective: This study aims to prospectively compare the consistency and reliability of Tacrolimus levels in blood samples obtained from CVC versus VP in pediatric kidney transplant patients, providing an evidence base for optimising clinical sampling practices.

Methods: This prospective study included pediatric kidney transplant patients with central catheters free of intravenous Tacrolimus. Paired samples were collected daily for seven days via peripheral venipuncture and central catheter using a standardised "mixed push-pull" protocol. Pearson correlation and Bland-Altman analyses quantified the linear relationship and mean difference between the measures. Ethical Review Approval Number: Fu'er Ethical Review (4) 374.

Results: Analysis of 105 paired samples revealed no significant difference in mean Tacrolimus levels between the CVC and VP groups ($P > 0.05$). A robust positive correlation was observed between the methods ($r = 0.969$, $P < 0.001$). Bland-Altman analysis demonstrated excellent agreement with a minimal mean bias of 0.276 ng/mL (95% CI: -2.637 to 3.189). Linear mixed-effects modelling confirmed high consistency between the measures at the overall mean level. No complications, such as catheter occlusion or infection, were observed.





ABSTRACT ID: RP 083

Title	Parent-Reported Manifestations and Diagnostic Means and Timelines in Sri Lankan Children with Cerebral Visual Impairment
Authors	Rajitha Soysa ¹ , Sanjaya Fernando ¹ , Pyara Rathnayaka ¹ , Brinie Weerasinghe ¹
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ABSTRACT

Introduction: Cerebral Visual Impairment (CVI) is a predominant cause of childhood visual impairment. Early identification is essential to leverage neuroplasticity, which is crucial for managing visual processing deficits and improving developmental outcomes.

Objectives: This study aimed to describe parent-reported pre-diagnostic clinical manifestations and calculate the lag periods between suspicion, diagnosis, and the initiation of visual rehabilitation.

Methods: A retrospective cohort study was conducted involving 50 children (aged 0–72 months; 54% females) at a Sri Lankan tertiary hospital. Data were gathered using a 56-item parent reported questionnaire covering clinical manifestations as well as an interviewer-administered questionnaire.

Results: The mean age of diagnosis was 18.5 months (SD=29.9), with children categorised into CVI Stage I (26%), II (22%), and III (16%). Leading risk factors were kernicterus (28%), prematurity (24%), and hypoxic-ischaemic encephalopathy (24%); common comorbidities included epilepsy (28%) and cerebral palsy (14%). High-frequency clinical manifestations included inability to follow moving objects (54%), staring at objects (50%), and light gazing (46%). While 80% of parents noted concerns within 12 months, only 34% utilised the Child Health Development Record (CHDR). However, all parents in the parent-reported group (30%) utilised the CHDR to formalise their suspicions. Surveillance identified 98% of at-risk cases. Doctors made all referrals and were responsible for incidental findings (34%). Furthermore, 92% were diagnosed within six months of suspicion, and 70% initiated rehabilitation within six months of diagnosis.

Conclusions: Parental observation and robust surveillance systems facilitate an efficient clinical pathway for rapid diagnosis and intervention, which is vital for effective CVI management.





ABSTRACT ID: RP 084

Title

Psychological Consequences of Academic Demands Linked to the Grade 5 Scholarship Examination in Sri Lanka: A Multivariate Linear Regression Analysis

Authors

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ABSTRACT

Background: The Grade 5 Scholarship Examination is a highly competitive school placement test frequently associated with intensive academic preparation and reduced leisure time. Although numerous studies have explored the mental health effects of high-stakes examinations, most have focused on adolescents.

Methods: An analytical cross-sectional study was conducted among 368 Grade 5 students in the Kurunegala Education Zone. Psychological distress was assessed using the Sinhala-validated DASS-21. Multivariate linear regression examined associations between examination exposure and depression, anxiety, and stress scores, adjusting for sociodemographic, socioeconomic, parenting, and academic factors.

Results: Examination-exposed students reported significantly longer weekly tuition hours and lower participation in extracurricular and physical activities (all $p < 0.05$). A substantial proportion of students in both groups reported moderate-to-extremely severe symptoms across psychological domains. After adjustment, examination exposure was independently associated with higher anxiety scores ($\beta = 1.61$, 95% CI 0.12–3.11; $p = 0.034$), while associations with depression and stress were not statistically significant. Among examination-exposed students, anxiety and stress scores increased across tuition duration quartiles, demonstrating a dose–response pattern.

Conclusions: Exposure to the Grade 5 scholarship examination is associated with higher anxiety and increased academic demands. These findings highlight the psychosocial costs of early high-stakes examination practices and underscore the need for balanced preparation strategies. Clear guidance to parents and supportive school-based interventions may help mitigate excessive academic pressure and protect children's mental wellbeing.





ABSTRACT ID: RP 085

Title	Study on Changes in Plasma 5-Hydroxytryptophan Levels Before and After Adrenocorticotrophic Hormone Treatment in Infantile Epileptic Spasm Syndrome and Its Correlation with Efficacy
Authors	Xinyu Cao ¹ , Lin Wan ¹ , Guang Yang ¹
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ABSTRACT

Objective: To explore the changes of plasma 5-hydroxytryptophan (5-HTP) and tryptophan metabolite levels in children with infantile epileptic spasms syndrome (IESS) before and after adrenocorticotrophic hormone (ACTH) treatment, and analyze their correlation with the short-term efficacy of ACTH.

Methods: A total of 35 children with IESS were enrolled. Plasma samples were collected before treatment and on the 14th day of treatment to detect the levels of tryptophan-related metabolites. The children were divided into controlled group and uncontrolled group, and further into controlled group, uncontrolled group and spasm recurrence group for inter-group comparison.

Results: The difference in 5-HTP was highly statistically significant between the two groups ($p < 0.001$), and remained significant after FDR correction ($p\text{-adj} = 0.004$). In further subgroup analysis, the median difference in the spasm recurrence group was between the non-response group and the response group, showing a gradient trend consistent with the efficacy grade. The KYN difference in the non-response group was higher than that in the response group.

Conclusion: Changes in plasma 5-HTP levels are potentially associated with the short-term efficacy of ACTH treatment in children with IESS. ACTH may restore the blood-brain barrier transport function through its anti-inflammatory effect, promoting 5-HTP entry into the brain to be converted into 5-HT for anticonvulsant effect in children with mild blood-brain barrier damage. Meanwhile, elevated blood 5-HTP levels before initial ACTH treatment may indicate a higher possibility of response to ACTH, which may serve as a predictive indicator for the efficacy of ACTH treatment.





ABSTRACT ID: RP 086

Title	Clinical and neuro-imaging diversity in children with Subacute Sclerosing Panencephalitis at tertiary care hospital
Authors	Shazia Kulsoom Lashari ¹
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ABSTRACT

Objective: To assess clinical neuro-imaging diversity in children with children with subacute panencephalitis at tertiary care hospital.

Methodology: Cross-Sectional Study conducted at neurology Department, National Institute of Child Health, Karachi Pakistan, from January to December 2024. Children aged 2 to 15 years were included. Demographic information, clinical features, EEG, MRI brain findings along with CSF and serum measles IgG antibodies were recorded.

Results: A total of 63 children were enrolled with a mean age of 6.3 ± 2.2 years. SSPE was more common in boys 50 (79.39%) patients. Mean age at presentation was $6.3 \text{ years} \pm 2.2$. Past history of measles was present 59 patients (93.6%), Majority have history of measles between 18- 24 months of age. The latent period between measles and SSPE was 2-5 years. 54 patients (85.7%) were unvaccinated while 9 patients (14.3%) were vaccinated against measles vaccination. The Clinical features at the time of presentation were in stage II 23 (36.5%) and III 40 (63.4%) according to modified Jabbour staging. Seven patients (11.1%) have atypical clinical presentation in the form of stroke, GBS, Kinesogenic dyskinesia, psychosis, choreiform movements and acute encephalitis. Neuroimaging was normal in majority of patients 39.6%, while gray matter changes were least common finding 6.2%.

Conclusion: The latency period between measles infection and disease onset can be very brief. Clinical, electroencephalographic, and radiological signs of the disease in children may be atypical. Genetic and immunologic studies are needed to establish a genetic predisposition and immunological association to the disease. Measles vaccination remains the most effective preventive measure against SSPE.





ABSTRACT ID: RP 087

Title

The Symmetrical Claustrum Sign in Pediatric Febrile Infection-Related Epilepsy Syndrome (FIRES): Diagnostic Value and Clinical Implications

Authors

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ABSTRACT

Objectives: This study aimed to assess the diagnostic value of Symmetrical Claustrum Sign (SCS) in children with febrile infection-related epilepsy syndrome (FIRES), describe the clinical features, treatment responses, and prognosis of children with FIRES accompanied by Symmetrical claustrum lesions (FIRES-C).

Methods: A retrospective cohort study conducted at Beijing Children's Hospital from January 2015 to April 2024 included children with "febrile and convulsions" who met the inclusion criteria. The diagnostic efficacy of SCS was calculated by analyzing the sensitivity and specificity.

Results: The study enrolled 1,105 patients, including 129 with FIRES, 35 of whom were diagnosed with FIRES-C (median onset age: 8.3 years; males: 18). In the cohort of patients with status epilepticus ($n = 347$), the sensitivity of SCS was 27.1% (95% confidence interval [CI], 19.8%–35.9%), and the specificity was 95.4% (95% CI, 91.8%–97.4%). The median time to develop bilateral claustrum lesions was 15.8 days (IQR 11–19). The results of the MRI scans revealed that 7 patients (20%) had isolated claustrum lesions, while 28 patients (80%) had extra-claustrum lesions. After a median follow-up of 42 months, 14 out of the 29 patients (48.3%) who survived exhibited moderate to severe deficits ($mRS \geq 3$), and 2 patients died. No significant differences in prognosis were observed between the two groups ($P=0.322$).

Significance: SCS exhibit high specificity but limited sensitivity in the diagnosis of FIRES in pediatric patients. SCS may serve as a biomarker to assist in the diagnostic process and is typically associated with a less severe clinical progression.





ABSTRACT ID: RP 088

Title	Clinical Phenotypes of PI3K-AKT-mTOR Pathway-Related Rare Neurodevelopmental Disorders and Early Experience with mTOR Inhibition
Authors	Li-Ping Zou ¹ , Yang-Yang Wang ¹
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ABSTRACT

Objective: To characterize neurodevelopmental phenotypes in PI3K-AKT-mTOR pathway-related disorders and report interim safety/feasibility of mTOR inhibition, focusing on a prospective PPP2R5D-related Jordan syndrome cohort, supported by a Smith-Kingsmore syndrome (SKS) case and contextual evidence from tuberous sclerosis complex (TSC).

Methods: We established a registry and standardized baseline phenotyping. Fifteen individuals with PPP2R5D-related Jordan syndrome underwent clinical assessment, EEG, and MRI review when available. Fourteen initiated sirolimus per protocol with remote safety follow-up at 1 month. Magnetoencephalography (MEG) acquisition was implemented to build quantitative brain network endpoints; source analyses are ongoing. One genetically confirmed SKS patient was followed longitudinally for >2 years under sirolimus with therapeutic drug monitoring (TDM).

Results: In the PPP2R5D cohort (n=15), global developmental delay was universal (100%). Common features included hypotonia (73.3%), macrocephaly (66.7%), EEG abnormalities (53.3%), autism spectrum features (40.0%), and MRI abnormalities (46.7%); p.E198K accounted for 60.0%. Among 14 sirolimus-treated participants, no serious adverse events were observed within the first month. Valid MEG recordings were obtained in 13 participants. In the SKS case (MTOR c.5663T>C, p.F1888S), sirolimus with TDM was associated with disappearance of abnormal EEG, improved seizure-risk profile, and good tolerability over >2 years.

Conclusions: Early data support feasibility and short-term safety of sirolimus initiation in PPP2R5D-related Jordan syndrome and establish a foundation for MEG-based quantitative endpoints in future efficacy evaluation.





ABSTRACT ID: RP 089

Title

A PROSPECTIVE STUDY OF 2 DECADES EXPERIENCE OF UNIFORMLY TREATED STAGE III WILMS TUMOUR FROM A LOW MIDDLE-INCOME COUNTRY

Authors

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ABSTRACT

Aim: To analyze the outcomes of stage III WT and determine factors affecting outcome.

Methods: Analysis of prospectively maintained data of Stage III WT treated from 1999 to 2018 followed up for at least a period of 5 years. Staging was as per NWTS-5 and treatment was as per AIIMS-WT-99 protocol utilizing NACT for select patients. These patients were analyzed for recurrences, survival, spill, IVC thrombus, lymph node positivity, chemotherapy and radiotherapy. Kaplan-Meier analysis for 4-year overall survival (OS) and Event free survival (EFS) was done.

Result: Out of 335 patients of WT treated in this period, 153(45%) were Stage-III. Age ranged 2-144 months and 97% had a favorable histology. These were Stage III because of capsular breach in 10(6.5%), Spill in 27(17.6%), positive lymph node 13(8.4%), IVC-thrombus 19(12.4%). 12(7.8%) were operated elsewhere hence intraoperative data was not available. 98% patients had undergone resection. 112(73%) received Neoadjuvant chemotherapy (NACT) and all adjuvant chemotherapy (ACT) and 84% received adjuvant radiotherapy (RT). Twelve patients died and 15 recurred giving a 4-year OS and EFS 92.4% and 85% respectively, with mean survival of 240 months (229-250 months). Forty-nine of 153 (32%) patients were labelled as Stage-III only because of receiving NACT. There were no recurrence in this group. The 4 year OS and EFS for this cohort of Stage-III patients was 95.7% and 95.7%.

Conclusion: Thirty-two percent patients were labelled as Stage-III only because of receiving NACT and the 4-year OS and EFS was better in this group. There were no recurrences in this group.





ABSTRACT ID: RP 090

Title

Computerized Cognitive Training Based on CogniFit Improves Cognitive Function in Preschool Children with Cancer: A Randomized Clinical Trial

Authors

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ABSTRACT

Introduction: Preschool children, undergoing rapid neurocognitive development, are particularly susceptible to cognitive late effects from cancer and its treatments. While computerized cognitive training shows promise in addressing these issues, its feasibility for preschool cancer patients remains largely unexplored.

Objective: The aim of this study was to determine whether Cognifit, a gamified computerized cognitive training intervention, is efficacious in improving the cognitive function of preschool children with cancer.

Results: Ultimately, 91 children (89.2%) completed the study and were included in the analysis. At the endpoint of the study compared with the control group, children in the computerized cognitive training condition exhibited a greater improvement in executive function ($\beta = -18.693$, 95% CI -2.627 to -0.943; $P < 0.001$). After the intervention, greater improvements were observed in the training group in terms of attentional stability ($\beta = 0.302$, 95% CI 0.178 to 0.977; $P = 0.008$) and quality of life ($\beta = 22.23$, 95% CI 0.66 to 3.08; $P < 0.001$). Furthermore, after the intervention, the satisfaction score of the experimental group was significantly higher than that of the control group (3.95 ± 0.65 vs. 2.00 ± 0.46 , $P < 0.001$).

Conclusions: The research results indicate that computerized cognitive training is feasible and effective for preschool cancer patients, which can enhance their executive function, attention stability, and quality of life, and the satisfaction rate is also high. However, it is necessary to conduct larger-scale multi-center effectiveness trials and longer follow-up periods to confirm these findings and evaluate the persistence of the therapeutic effects.





ABSTRACT ID: RP 091

Title	Acceptability and Feasibility of Digital Gamified Cognitive Training Intervention for Preschool Children with Cancer-Related Cognitive Late Effects: A Mixed-Methods Study
Authors	Tao Liu ¹
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ABSTRACT

Objective: This study aimed to explore the acceptability and feasibility of Cognifit, an innovative digital gamified cognitive training method, in improving cognitive late effects among preschool children with cancer, and to describe the determinants of its implementation.

Method: A single-group, prospective, embedded mixed-methods design was employed to measure cognitive changes following training and evaluate system performance. Quantitative assessment tools include the Behavior Rating Inventory of Executive Function – Preschool Version (BRIEF-P), Sustained Attention Test, Working Memory Test, Pediatric Quality of Life Inventory Version 4.0 (PedQL™ 4.0), and System Usability Scale (SUS). After completing the training, caregivers underwent interviews to assess the acceptability and feasibility of Cognifit.

Result: A total of 18 preschool-aged children with cancer and their caregivers agreed to participate, with 2 of them dropping out midway. Quantitative descriptive data indicated that executive function and quality of life appeared to have improved, suggesting the feasibility of large-scale future implementation. Qualitative semi-structured interviews revealed that despite facing challenges such as regular participation and cultural misunderstandings, caregivers generally held a positive attitude toward the Cognifit digital game-based cognitive training.

Conclusion: Our study confirmed the feasibility and acceptability of the Cognifit digital gamified intervention for preschool-aged children with cancer and their caregivers. The study underscores the importance of adapting digital gamified interventions to better suit vulnerable populations such as preschool-aged children with cancer and proposes corresponding improvement recommendations. Future research should explore modifications to the intervention protocol while conducting large-scale, multicenter randomized controlled trials to evaluate the effectiveness of the intervention.





ABSTRACT ID: RP 092

Title	Relationships among cognitive, emotional, sleep, and fatigue symptoms in children with malignant solid tumors: A network analysis
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ABSTRACT

This study aimed to elucidate the complex interactions among cognitive, emotional, sleep, and fatigue symptoms in children with malignant solid tumors using a network analysis approach. A total of 230 pediatric patients (aged 6–18 years) were recruited from a tertiary hospital in Chongqing. Symptom data were collected using the Wechsler Intelligence Scale for Children-Fourth Edition (WISC-IV) Chinese version (short form), the Generalized Anxiety Disorder-7 (GAD-7), the Patient Health Questionnaire-9 (PHQ-9), the Sleep Disturbance Scale for Children (SDSC), and the PedsQL Multidimensional Fatigue Scale (PedsQL MFS). A Gaussian Graphical Model was employed to estimate the symptom network, calculate centrality indices, and perform subgroup comparisons.

Results showed a high prevalence of symptoms: Cognitive impairment (44.78%), anxiety (51.74%), depression (29.13%), and sleep disturbances (63.48%). Network analysis revealed that S5-DOES ("Disorders of Excessive Somnolence"), S1-DIMS ("Disorders of Initiating and Maintaining Sleep"), and F3-CF ("Cognitive Fatigue") were the most central nodes across the sample. Notably, F3-CF ("Cognitive Fatigue") emerged as the primary bridge symptom connecting different symptom domains. Network comparison tests further identified significant differences in global strength and structure between clinical subgroups. In conclusion, cognitive, emotional, sleep, and fatigue symptoms are highly interconnected in pediatric oncology. Our findings suggest that S5-DOES ("Disorders of Excessive Somnolence") and F3-CF ("Cognitive Fatigue") are critical intervention targets. Tailored clinical strategies based on tumor type and cognitive status are warranted to achieve synergistic symptom management and improve overall patient outcomes.





ABSTRACT ID: RP 093

Title

Exploring the Immunomodulatory Role of IL-22 in Pediatric Bronchial Asthma: A Translational Study from Clinical Serum Markers to Murine Molecular Mechanisms

Authors

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ABSTRACT

Introduction: Pediatric bronchial asthma (BA) is a heterogeneous inflammatory disorder with rising prevalence in Asia-Pacific regions. Interleukin-22 (IL-22) exhibits paradoxical roles in adult asthma models—promoting inflammation in chronic *Aspergillus fumigatus*-induced asthma but exerting protective effects in OVA-induced allergic asthma. However, its functional mechanisms in pediatric BA remain unclear.

Objectives: To Quantify serum IL-22 levels in acute pediatric BA exacerbations versus remission and healthy controls, elucidate IL-22's immunomodulatory role in an OVA-induced juvenile mouse model, and identify molecular pathways linking IL-22 to airway inflammation and remodeling.

Methods: A prospective case-control study enrolled 104 acute BA patients, 80 remission patients, and 80 healthy children. Serum IL-22 was measured by ELISA, correlated with FeNO, eosinophil count, and total IgE. In parallel, BALB/c mice were randomized into five groups: IL-22- treated, anti-IL-22 antibody-treated, isotype control, OVA-challenged, and saline control. Airway hyperresponsiveness (AHR) was assessed via non-invasive spirometry. Bronchoalveolar lavage fluid (BALF) eosinophils were quantified, and lung tissues underwent H&E/PAS staining and TMT-based proteomics. Immunofluorescence validated MHC-II expression in dendritic cells.

Results: Acute BA patients showed significantly elevated serum IL-22 levels compared to remission and healthy controls ($P < 0.001$), correlating with FeNO and eosinophil count. In mice, IL-22 intervention reduced airway resistance to methacholine ($P < 0.01$), BALF eosinophilia (by 47%), and PAS-positive goblet cells (by 32%). Proteomics confirmed reduced MHC-II protein expression in lung dendritic cells and inhibition of NADPH oxidase activity ($P < 0.05$).

Conclusions: Elevated IL-22 in acute pediatric BA curbs antigen presentation by downregulating MHC II and inhibiting NADPH oxidase-mediated ROS synthesis, alleviating airway inflammation.





ABSTRACT ID: RP 094

Title

Expanding Diagnostic Access: Utility of Level 4 Portable Oximetry for Detection of Paediatric Obstructive Sleep Apnoea in a Resource-Limited Setting

Authors

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ABSTRACT

Introduction: Polysomnography is the gold standard for diagnosing paediatric obstructive sleep apnoea (OSA); however, limited availability restricts access in many low-income settings. Level 4 portable oximetry may serve as a practical interim diagnostic alternative. This study reports findings from an expanded cohort, building on previously presented preliminary data.

Objectives: To evaluate the diagnostic utility of level 4 portable oximetry for paediatric OSA and to assess associations between clinical assessment, Sleep-Related Breathing Disorder Paediatric Sleep Questionnaire (SRBD-PSQ) scores, and oximetry parameters.

Methods: A cohort study was conducted in Galle, Sri Lanka in 2025, including 50 children with suspected sleep-disordered breathing. Participants underwent clinical evaluation, SRBD-PSQ assessment, early morning blood gas analysis, and overnight continuous pulse oximetry. The cohort included equal males and females (1:1), aged 4 months–15 years (mean 8 years); 51% had underlying syndromes.

Results: 50.0% of the participants screened positive on the SRBD-PSQ. Adequate-quality oximetry data were obtained in 76% of studies (mean duration 6 hours). OSA was identified in 57.9% of participants, predominantly mild disease (36.8%). No significant correlations were identified. Management guided by oximetry findings included weight reduction (22.7%), noninvasive ventilation (9.1%), and surgical referral (6.8%), and monitoring with interval studies (45.5%).

Conclusions: Level 4 portable oximetry demonstrated meaningful diagnostic utility for paediatric OSA in this expanded cohort and represents a feasible interim tool to improve access to timely care in resource-limited Asia-Pacific settings.





ABSTRACT ID: RP 095

Title	Clinical Efficacy and Hospitalization Costs of Clarithromycin in the Treatment of Hospitalized Children with Mycoplasma Pneumoniae Pneumonia: A Retrospective Study
Authors	Chunlei Chen ¹ , Yingxue Zou ¹ , Run Guo ¹ , Jiao Li ¹
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ABSTRACT

Introduction: Azithromycin exhibits poor therapeutic efficacy in children with macrolideresistant Mycoplasma pneumoniae pneumonia (MPP). Clarithromycin is a potential alternative, yet real-world evidence remains scarce.

Objectives: To analyze the therapeutic efficacy and hospitalization costs of clarithromycin in treatment-naïve and azithromycin-treated hospitalized MPP children.

Methods: This single-center retrospective study involved hospitalized MPP children admitted to Tianjin Children's Hospital from December 2023 to December 2024. Clinical data including age, inflammatory and biochemical indices were extracted from the electronic medical record system. Duration of fever, hospitalization, hospitalization costs, proportion of glucocorticoid use and bronchoscopy during hospitalization were analyzed.

Results: 15,047 children were included: 7180 received azithromycin (0.5-6 years: 3127; 6-18 years: 4053), 2454 received clarithromycin (0.5-6 years: 1434; 6-18 years: 1020). At baseline, IL-6 and IL-10 levels were higher in the clarithromycin group than in the azithromycin group. Compared with the azithromycin group, the clarithromycin group presented significantly shorter mean duration of hospitalization and lower mean hospitalization cost (0.5-6 years: 11,876.9±4310.2 vs 11,043.7±3428.0 Chinese yuan [CNY], $p<0.001$; 6-18 years: 12,210.1±3769.6 vs 10,971.1±3179.6 CNY, $p<0.001$), but a higher glucocorticoid use rate ($p=0.010$). The clarithromycin group had a longer mean fever duration ($p<0.001$) and a higher bronchoscopy use rate ($p=0.008$) in the 0.5-6 years children, but a shorter mean fever duration in the 6-18 years children (6.1 ± 2.8 vs 5.8 ± 3.2 days, $p=0.019$). Clarithromycin and doxycycline showed no significant differences in these outcomes among azithromycin-treated children.

Conclusions: Clarithromycin has comparable efficacy to azithromycin and doxycycline, and it is a viable alternative for azithromycin-resistant MPP with real-world evidence.





ABSTRACT ID: RP 096

Title	Development and Validation of an Interpretable Machine Learning Model for Severe Adenovirus Pneumonia in Children Using SHAP
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ABSTRACT

Introduction: Severe adenovirus pneumonia (SAP) in children is associated with high morbidity, a propensity for multi-system complications, and a significant risk of long-term sequelae.

Objectives: To facilitate early intervention, this study aimed to develop and validate an interpretable machine learning model for predicting SAP risk in pediatric patients.

Methods: A total of 930 pediatric patients diagnosed with adenovirus pneumonia were included in this retrospective analysis, with 43 variables encompassing clinical and demographic characteristics as well as laboratory indicators. The dataset was randomly partitioned into a training set (70%, n=652) and an independent test set (30%, n=278). Feature selection utilized Least Absolute Shrinkage and Selection Operator (LASSO) regression and the Boruta algorithm, identifying 20 key variables, followed by the construction of predictive models using eight mainstream machine learning algorithms. Model performance was evaluated based on the area under the receiver operating characteristic curve (AUC), decision curve analysis, and calibration curves, and the interpretability of the optimal model was assessed using SHapley Additive exPlanations (SHAP).

Results: A predictive model incorporating 20 variables was developed. Among the algorithms tested, the LightGBM model demonstrated the best performance, achieving an AUC of 0.918. Ten-fold cross-validation and sensitivity analysis confirmed its robustness and reliability. SHAP analysis identified the top five predictive features: extensive lobar consolidation, fever duration, lung collapse, decreased breath sounds, and peak fever.

Conclusion: This effective machine learning-based model enhances understanding of pediatric SAP and supports early identification and timely intervention.





ABSTRACT ID: RP 097

Title	Recurrent Wheezing Following RSV/HRV Infection in Children Under 5 Years: A Single-center Study in China
Authors	Yuqing Wang ¹
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ABSTRACT

Objective: To investigate the association between respiratory syncytial virus (RSV)/human rhinovirus (HRV) infection and recurrent wheezing in children.

Methods: Children under 5 years old hospitalized for first wheezing episode at Children's Hospital of Soochow University (Nov 2022–Apr 2023) were enrolled. Nasopharyngeal secretions were collected for respiratory pathogen detection and cytokine analysis (IL-33, IL-2, TNF- α , IL-6, IL-13, IL-5, IL-4, IFN- γ , TSLP, CXCL10, CCL5). Guardians were followed up via outpatient visits or telephone at 3, 6, 9, 12, 15, and 18 months post-discharge.

Results: 1. A total of 157 children were included, consisting of 114 males (72.6%) and 43 females (27.4%).
2. Pathogen detection results showed 50 (31.8%) RSV, 41 (26.1%) HRV, 12 (7.6%) influenza A, 8 (5.1%) metapneumovirus, 4 (2.5%) parainfluenza virus, 2 (1.3%) bocavirus, 2 (1.3%) Mycoplasma pneumoniae, and 1 (0.6%) influenza B.
3. 3 (6.0%) had 1 wheezing episode, 7 (14.0%) had 2 episodes, and 25 (50.0%) had recurrent wheezing (≥ 3 episodes) in RSV-infected children. CCL5 was an independent risk factor for recurrent wheezing in RSV-infected children (OR = 1.010, 95% CI: 1.018–1.105).
4. 11 (26.8%) had 1 wheezing episode, 6 (14.6%) had 2 episodes, and 16 (38.8%) had recurrent wheezing (≥ 3 episodes) in HRV-infected children. CXCL10 was a risk factor for recurrent wheezing in HRV-infected children (OR = 1.003, 95% CI: 1.000–1.005).

Conclusions: 1. At 18-month follow-up, the recurrent wheezing rates were 50% (RSV) and 38.8% (HRV) respectively.
2. CCL5 and CXCL10 are independent risk factors for recurrent wheezing after RSV and HRV infection, respectively.





ABSTRACT ID: RP 098

Title

Emergence of Clinical Unresponsiveness to Macrolide in Chlamydia Pneumoniae from Pediatric Ward

Authors

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ABSTRACT

Objective: To investigate the factors influencing macrolide unresponsiveness in children with Chlamydia pneumoniae (C. pneumoniae) infection, amid its recent sharp increase as an emerging pathogen.

Methods: A retrospective analysis of pediatric C. pneumoniae infection cases (2017–2025) was conducted. Logistic regression adjusted for confounding factors to identify independent predictors of macrolide unresponsiveness. Metagenomic next-generation sequencing (mNGS) and whole-genome sequencing (WGS) were used to analyze pathogen copy number, coinfections, resistance genes, virulence factors, and genetic characteristics.

Results: Macrolide unresponsiveness primarily occurred in 2025 (95%, 57/60) with an incidence of 42.9% (57/133). Independent factors included age >6 years (OR 0.14, 95% CI 0.01–0.89), age >12 years (OR 0.08, 95% CI 0.01–0.54), summer/autumn (OR 3.65, 95% CI 1.04–14.7), and abnormal aspartate aminotransferase (OR 0.12, 95% CI 0.03–0.47). mNGS showed no association with C. pneumoniae copy number (P=0.9652) but a link with Streptococcus pneumoniae co-infection (P=0.017), with more resistance genes/virulence factors in unresponsive cases. WGS identified predominant ST16/ST17 (not associated with unresponsiveness, P=0.851), conserved virulence factors, no known resistance genes, but multiple 23S rRNA point mutations. No clear phylogenetic clustering was observed in unresponsive cases.

Conclusions: Macrolide unresponsiveness in pediatric C. pneumoniae infection is linked to age, season, abnormal liver function, and S. pneumoniae co-infection, with 23S rRNA mutations potentially contributing. Surveillance and optimized clinical management are urgently needed to address antimicrobial resistance.





ABSTRACT ID: RP 099

Title	Performance of the Asthma Control Questionnaire (ACQ-5, ACQ-6, and ACQ-7) to assess Well-Controlled Asthma in Indian Children
Authors	Jagdish Prasad Goyal ¹ , Saurabh Agarwal ¹ , Prawin Kumar ¹
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ABSTRACT

Introduction: The Asthma Control Questionnaire (ACQ) assesses asthma control over the preceding week. The original 7-item ACQ includes reliever use and lung function, which the Global Initiative for Asthma (GINA) does not recommend for symptom control assessment, leading to shorter versions (ACQ-5 and ACQ-6). Data on their performance in children are limited.

Objective: To compare the diagnostic performance of ACQ-5, ACQ-6, and ACQ-7 against the GINA symptom control tool for identifying well-controlled asthma in children.

Methods: In this cross-sectional study, children aged 7–16 years with asthma and ≥3 months of follow-up were evaluated in a pediatric chest clinic. Demographic and clinical data, GINA treatment step, spirometry, and asthma control scores were recorded. ACQ-5, ACQ-6a, ACQ- 6b, and ACQ-7 were compared with GINA symptom control criteria. Diagnostic accuracy was assessed using conventional (0.75) and ROC-derived cut-offs. Agreement, interobserver reliability (κ), test–retest reliability (intraclass correlation coefficient), and Bland–Altman analyses were performed.

Results: Median ACQ scores were significantly lower in well-controlled asthma than in poorly controlled asthma across all versions. At a cut-off of 0.75, ACQ-6b showed the highest sensitivity and negative predictive value, while ACQ-6a had the highest specificity. Areas under the ROC curves were similar across all ACQ versions. ACQ-7 demonstrated the highest interobserver reliability. Test–retest reliability was excellent for shortened versions, and Bland–Altman analysis showed good agreement with ACQ-7.

Conclusions: Shortened ACQ versions perform comparably to ACQ-7 and the GINA symptom control tool for identifying well-controlled asthma in children.





ABSTRACT ID: RP 100

Title	Elevated IL-8 and abnormal lymphocytes in pediatric primary Sjögren's syndrome: a single-center study
Authors	Xianfei Gao ¹ , Ping Zeng ¹
Affiliations	¹ Guangzhou Women and Children's Medical Center, Guangzhou Medical University, China

ABSTRACT

Introduction: Cytokines and lymphocytes orchestrating the pathophysiological landscape have been well explored in adults but remains understudied in children.

Objectives: This study evaluated their potential as biomarkers in diagnosis of pediatric Sjögren's syndrome (pSS).

Method: We retrospectively analyzed 14 pediatric patients with pSS who attended our rheumatology clinic over 2 years. Plasma levels of IL-4, IL-5, TNF- α , IFN- γ , TNF- β , IL-6, IL-1 β , IL-2, IL-10, IL-8, IL-22, IL-12p70, IL-17F, and IL-17A, as well as percentages and absolute counts of CD3 + , CD19 + , CD3-CD16 + /CD56 + , CD3 + CD4 + , and CD3 + CD8 + lymphocytes, were measured in 14 pSS patients and 12 healthy controls.

Results: IL-8 levels were elevated in pSS patients compared to controls. CD3 + CD8 + lymphocytes were increased, while CD3 + , CD3 + CD4 + , CD19 + , and CD3-CD16 + /CD56 + lymphocytes were decreased in pSS patients.

Conclusion: IL-8 may be a potential indicator for the early diagnosis of pSS, together with T-, B-, and NK-cell abnormalities, may contribute to disease pathogenesis. Larger studies are needed to confirm these findings.





ABSTRACT ID: RP 101

Title	Potential biomarkers in early diagnosis of Stevens-Johnson syndrome and Toxic Epidermal Necrolysis in children: a single-center study
Authors	Xianfei Gao ¹ , Ping Zeng ¹
Affiliations	¹ Guangzhou Women and Children's Medical Center, Guangzhou Medical University, China

ABSTRACT

Introduction: Stevens-Johnson syndrome (SJS) and toxic epidermal necrolysis (TEN) are serious, life-threatening skin diseases. Although these diseases are relatively rare, they have high mortality and sequelae rates.

Objectives: This study evaluated their potential as biomarkers in the diagnosis of SJS and TEN. Method: We retrospectively analyzed 60 pediatric patients with SJS/TEN who attended our rheumatology clinic from 2017 to 2024. Clinical data and experimental results, plasma cytokin levels, as well as percentages and absolute counts of lymphocytes, were measured in 60 SJS and TEN patients and 20 healthy controls.

Results: IL-2, IL-6, and IL-17A levels were elevated in SJS/TEN patients compared to controls. CD19 +/lymphocyte%, CD3 +CD4 +CD8 + lymphocytes were increased, while CD3 +/ , CD3 +, CD3 +CD4 +/lymphocyte%, CD3 +CD4 +, CD3 +CD8 +, and CD3-CD16 + /CD56 + lymphocytes were decreased in SJS/TEN patients. Alkaline phosphatase was negatively correlated with the severity of skin lesions, while CRP and anti-cyclic citrullinated peptide antibody were positively correlated with the severity of skin lesions.

Conclusion: IL-2, IL-6, and IL-17A may be potential indicators for the early diagnosis of pSS, together with T-, B-, and NK-cell abnormalities, which may contribute to disease pathogenesis. Larger studies are needed to confirm these findings.





ABSTRACT ID: RP 102

Title	Laparoscopic Adrenalectomy for Pediatric Pheochromocytoma : Single Centre Comparative Study
Authors	Vishesh Jain ¹ , Sandeep Agarwala ¹ , Prabudh Goel ¹ , Anjan Kumar Dhua ¹ , Devendra Kumar Yadav ¹
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ABSTRACT

Aims: Management options in pediatric pheochromocytoma may be open or laparoscopic surgery but the surgical difficulty increases with increase in size especially in pediatric age group. We compared the laparoscopic management of unilateral & bilateral pheochromocytomas with size <4 cm & ≥4cm.

Methods: A retrospective review was performed of laparoscopic adrenalectomies for pheochromocytoma by 2 surgeons over a 3-year period. All patients underwent lateral transperitoneal surgeries. Operative & outcome data were retrieved & compared for tumours >4 cm versus smaller tumours.

Results: We performed 11 laparoscopic adrenalectomies on 8 patients including 2 simultaneous bilateral surgeries. Five tumors were >4 cm in size (mean 5.7 cm) while 8 were smaller (mean 3.3 cm). Conversion from lap to open was required for only 2 adrenalectomies (18%), where size of both were >4cm & incidentally both were bilateral as well. Rest all were operated laparoscopically. Only one patient (12%) is on anti-hypertensive medication post-operatively.

Conclusion: Laparoscopic adrenalectomy is feasible & safe in pediatric pheochromocytoma cases, however with tumor size >4cm the chances of conversion to open increases.





ABSTRACT ID: RP 103

Title	Influencing Factors and Path Analysis of Postoperative Kinesiophobia in Adolescents with Pectus Excavatum
Authors	Zhu Rong ¹ , Li Fei ¹ , Zhang Jie ¹ , Zeng Xiaoxu ² , Wang Peiran ¹ , Xu Li ² , Sun Hongyan ¹
Affiliations	¹ Guizho Provincial People's Hospital, China ² Guizhou Branch of Shanghai Children's Medical Centre, China

ABSTRACT

Background: To investigate the present scenario of postoperative kinesiophobia in adolescents with pectus excavatum, analyze the influencing factors, and determine the path of action among the factors to provide a reference for intervention in clinical settings.

Methods: Using purposive sampling, we selected 212 adolescents with pectus excavatum who were treated at the Department of Pediatric Thoracic Surgery of Guizhou Provincial People's Hospital and Shanghai Children's Medical Center Guizhou Hospital between September 2022 and December 2024. The following scales were used: General Information Questionnaire, Numerical Rating Scale for Pain, Tampa Rating Scale for Kinesiophobia, Pain Catastrophizing Scale, Chinese Version of General Self-Efficacy Scale, and Chinese Version of Patient-Reported Outcome Measurement Information System Physical Functioning Short-Form 6b. A generalized linear model was used to identify the influencing factors, followed by path analysis.

Results: Kinesiophobia was observed in 83.5% of adolescents following surgery for pectus excavatum. Furthermore, the incidence of moderate to severe pain was 71.2%, and the positive rate of pain catastrophizing was 65.1%. We identified the degree of chest wall deformity, pain catastrophizing, pain degree, and self-efficacy as the factors influencing postoperative kinesiophobia in adolescent children with pectus excavatum. Path analysis revealed that the degree of chest wall deformity directly influenced the degree of pain and physical function.

Conclusions: The incidence of postoperative kinesiophobia is high in adolescent children with pectus excavatum. Medical staff should pay attention to postoperative kinesiophobia in children, decrease children's fear of early postoperative activities from the perspective of controlling pain catastrophizing, and help in reducing pain and improving physical function and self-efficacy.





ABSTRACT ID: RP 104

Title	A Quality Improvement Project to Enhance Parental involvement in postoperative pain management after Pediatric Tonsillectomy
Authors	Wenying Yao ¹ , Jinxia Yang ¹
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ABSTRACT

Background: Tonsillectomy is one of the most common surgical procedures, with 289,000 ambulatory procedures performed annually in children <15 years of age, and pain is a major cause of post-tonsillectomy complications.

Objectives: To evaluate the effect of parent participation in postoperative pain management programs on children's post-tonsillectomy pain score and other outcome measures.

Methods: In this experimental controlled study between two groups in the inpatient ENT ward of a tertiary children's hospital, 118 children from April 1 to May 15, 2022, were randomly selected as the control group, and 117 children from June 1 to July 15, 2022, were randomly selected as the intervention group. The control group received routine postoperative pain management, and the intervention group received the program of parental involvement in postoperative pain management. Postoperative pain-related data were collected for the two groups of children.

Results: There was no significant difference in the demographic characteristics of the two groups of children ($P > 0.05$). The pain score of the children in the intervention group was significantly lower than that of the control group when returning to the ward on the day of surgery ($Z = 3.185$, $P = 0.002$), after 2 hours ($Z = 7.280$, $P = 0.000$), after 4 hours ($Z = 6.4000$, $P = 0.000$), after 24 hours ($Z = 2.698$, $P = 0.009$), at discharge ($Z = 3.397$, $P = 0.002$), and at the postoperative hospital visit ($Z = 3.349$, $P = 0.001$).

Conclusions: The programs applied to children undergoing tonsillectomy can improve the participation of parents in postoperative pain management of children, relieve postoperative pain in children undergoing tonsillectomy, and improve children's postoperative quality of life.





ABSTRACT ID: RP 105

Title	Development of a Machine Learning-Based Prediction Model for Pin Site Infection Risk Following External Fixation in Children
Authors	Ouyang Yaqi ¹ , Yi yinzhi ¹ , Xu Le ¹ , Mo Shasha ¹ , Mei Haibo ¹ , Xie Jianhui ¹
Affiliations	¹ Hunan Children's Hospital, China

ABSTRACT

Objective: To develop and validate a machine learning-based model for predicting pin tract infection in children after external fixation surgery.

Methods: A retrospective study was conducted on 338 children (213 males, 125 females) who underwent external fixation between 2021 and 2024. Patients were randomly split into development (n=237) and test (n=101) sets (7:3). Demographic, surgical, and laboratory data were collected. Lasso regression identified significant predictors, which were used to build four

models: Random Forest (RF), Logistic Regression (LR), Support Vector Machine (SVM), and Naïve Bayes (NB). Model performance was evaluated using ROC curve and decision curve analysis (DCA); variable importance was ranked for the optimal model.

Results: In the test set, the RF model achieved the highest AUC (0.99), sensitivity (1.00), accuracy (0.98), and F1-score (0.93), outperforming LR (0.69, 0.63, 0.71, 0.38), SVM (0.72, 0.52, 0.85, 0.49), and NB (0.68, 0.70, 0.66, 0.36). The RF model demonstrated superior discriminative ability.

Conclusion: The Random Forest model exhibited excellent predictive performance for pin tract infection in children post-external fixation, providing an effective tool for early prediction and prevention in clinical practice.





ABSTRACT ID: RP 106

Title	Levels and predictors of maternal competencies in early infancy: Evidence from Southern Sri Lanka
Authors	Vishari De Silva ¹ , Champa Wijesinghe ¹ , Thyagi Ponnampereuma ¹ , Gayani Punchihewa ² , Vijitha De Silva ¹
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ABSTRACT

Introduction: Maternal competencies reflect the ability of a mother to care adequately for her baby without support from others. The quality of maternal caregiving has a significant effect on the baby's emotional, physical, and social well-being, therefore identifying and educating the mother with poor maternal competencies is important.

Objective: To assess the levels and associated factors of maternal competencies during first six months of infancy among mothers of infants attending immunization clinics in Matara Medical Officer of Health (MOH) area.

Methods: A cross-sectional study was conducted among a consecutive sample of 100 mothers accompanying their infants to the immunization clinics in Matara MOH area. A self-administered questionnaire, including locally validated Maternal Competency Assessment Tool-Early Infancy (MCAT-EI), was employed to identify levels of maternal competencies and associated factors. Logistic regression analysis was used to assess the predictors of maternal competencies.

Results: Among the mothers, 84% had good maternal competencies (mean total MCAT-EI $\pm$ SD=88.9 $\pm$ 9.6). The highest level of competencies was observed in identifying normal growth and development (mean $\pm$ SD=92.7 $\pm$ 11.0) and ensuring sleep and comfort (mean $\pm$ SD=90.9 $\pm$ 12.2). In bivariate analysis, a higher maternal competency level was significantly associated with multiparity ($p=0.02$), and maternal unemployment ($p=0.006$), while both variables remained significant predictors of higher maternal competencies in early infancy after controlling for confounders (OR=4.0, $p=0.02$ and OR=5.18, $p=0.007$, respectively).

Conclusions: A majority of the mothers demonstrated good maternal competencies, with multiparity and employment being significant predictors. Targeted postnatal care education of primi-mothers during antenatal sessions and establishing flexible work arrangements during early postnatal period are recommended.





ABSTRACT ID: RP 107

Title	Quality Of Life Scores as a Determinant of Anxiety Levels in Hospitalized Children
Authors	Jeeva Janani Kuppusamy ¹ , Farah Khalid ² , Chong Lee Ai ² , Mohamad Shafiq Bin Adanan ²
Affiliations	¹ Hospital Sultan Ismail, Ministry of Health, Malaysia ² University Malaya Medical Centre, Malaysia

ABSTRACT

Background: Hospitalisation is a stressful experience that frequently triggers anxiety in children. While anxiety influences well-being, few studies provide clinically meaningful thresholds to guide practice. The absence of validated cut-off scores makes it difficult to identify clinically significant anxiety requiring intervention.

Objective: To examine the relationship between trait anxiety and quality of life (QoL) among hospitalised children aged 8–18 years, identify associated socio-demographic and clinical factors, and determine a clinically meaningful trait anxiety cut-off predicting poor QoL.

Methods: A cross-sectional study was conducted in the paediatric wards of University Malaya Medical Centre from 25 October to 5 December 2023. One hundred children were recruited within 24 hours of admission. Anxiety was assessed using the State-Trait Anxiety Inventory for Children (STAIC), and QoL using the Paediatric Quality of Life Inventory (PedsQL). Demographic and clinical data were obtained from caregivers and medical records.

Results: Median age was 10 years (IQR 9–12); 64% were male. Median STAIC trait score was 32 (IQR 27–36), and median PedsQL score was 74.5 (IQR 60–82). Trait anxiety showed a moderate negative correlation with QoL ($p = -0.502$, $p < 0.001$). Repeated admissions and daily medication use were associated with higher trait anxiety and poorer QoL. ROC analysis identified a trait anxiety cut-off score of 33.5 (Youden's Index 0.494) predicting poor QoL.

Conclusion: Higher trait anxiety is significantly associated with poorer QoL in hospitalised children. A STAIC trait score ≥ 33.5 may serve as a practical screening threshold for early psychosocial intervention.





ABSTRACT ID: RP 108

Title	Electronic Screen Use among Hospitalized Children at Lady Ridgeway Hospital, Colombo
Authors	Dimantha Bandara Waduressa ¹ , Hasitha Liyanaarachchi ¹ , Prasad Chathurangana ¹ , Dulani Samaranayake ¹ , Yashodara Amarasinghe ¹
Affiliations	¹ Faculty of Medicine, University of Colombo, Sri Lanka

ABSTRACT

Introduction: Excessive screen exposure in children has been linked to adverse physical, behavioural, and neurodevelopmental outcomes. Hospitalization may influence screen use due to limited recreational alternatives. Sri Lankan data on in-hospital screen exposure are limited.

Objectives: To describe electronic screen use patterns during hospitalization, identify associated factors, and compare screen use at home.

Methods: A descriptive cross-sectional study involved children (3 months–12 years) admitted for ≥ 7 days to Lady Ridgeway Hospital, Colombo. Data collection used consecutive sampling, collected via validated questionnaire. Analysis used SPSS version 23.0; with $p < 0.05$ considered significant.

Results: Of 364 children included (mean age 6.2 years, ± 3.21 SD), majority (90.38%, $n=329$) had digital screen access. Screen availability for home-use was almost universal (97.5%, $n=356$). Mean hospital screen-time was 50.69 minutes (min = 0, max = 240 minutes) daily. In-hospital use correlated positively with age ($\rho = 0.205$, $p < 0.001$) and caregiver education level ($r_s = 0.119$, $p = 0.023$). A significant difference existed between in-hospital and school-day home screentime ($p < 0.0001$). Smartphones were commonest (90.10%, $n=328$); 32.6% aged 3–24 months used screens, and 46.9% aged 2–5 years had screen-time > 1 hour. Commonest activities were cartoons (42.2%, $n=199$) and nursery rhymes (29.9%, $n=138$). Educational use remains low both in-hospital (median=0, min=0, max= 90 minutes) and at home (median=0, min=0, max=120). The commonest reason for in-hospital use was lack of indoor game resources (46.5%, $n=193$).

Conclusions: Although most hospitalized children used digital screens, average exposure remained under one hour daily though significantly exceeding home-use. Findings favour developing structured non-digital engagement strategies within wards.





ABSTRACT ID: RP 109

Title	Impact of Adverse Childhood Experiences and Health Risk Behaviours on Adolescent Suicidality and Self-Harm: Preliminary Results of a Study from Northern Sri Lanka
Authors	Visvalingam Arunath ¹ , Uthayakumar Purushothaman ¹ , Sachith Mettananda ²
Affiliations	¹ District General Hospital, Mullaitivu, Sri Lanka ² Department of Paediatrics, Faculty of Medicine, University of Kelaniya, Sri Lanka

ABSTRACT

Introduction: Adolescent self-injury and suicidality represent significant public health challenges, often rooted to life stressors. Although Adverse Childhood Experiences (ACEs) are known precursors for self-injury and suicidality, data among Sri Lankan adolescents are limited.

Objectives: To determine the incidence of self-harm and suicidality (suicidal ideation and suicidal attempt) and to describe their associations with ACEs, risk behaviours and mental health issues among 16-17-year-old school-going adolescents in Vavuniya district, Sri Lanka.

Methods: A cross-sectional study was conducted among adolescents in Vavuniya district, Sri Lanka, using a pre-tested self-administered questionnaire. ACEs questions were adapted from 17-item Paediatric ACEs Screening and Related Life-events Screener. Ethical approval was obtained, and the data were analysed using SPSS.

Results: A total of 461 adolescents were recruited, of whom 57% had experienced at least one ACE. The incidence of self-harm and suicidality during the past year was reported as 14.1% for self-injury, 11.1% for suicidal ideation, and 5.9% for suicidal attempts. ACEs were significantly associated with increased risks for self-injury and suicidality ($p < 0.05$). Self-injury and suicidality were significantly more prevalent among adolescents reporting cognitive difficulties, depressed mood, and anxiety symptoms ($p < 0.05$). Lower incidence rates were reported among the adolescents with absence of bullying ($p < 0.05$), lack of involvement in physical violence ($p < 0.05$), and abstinence from tobacco, alcohol, and illicit substances ($p < 0.05$).

Conclusions: The incidence of self-injury and suicidal attempts were 14% and 6%, respectively, among adolescents in Vavuniya, Sri Lanka. Suicidality was significantly associated with ACEs and mental health issues, highlighting the need for targeted mental health interventions.





ABSTRACT ID: RP 110

Title

Dyslipidemia in pre-adolescent malnourished children in an Indian urban birth-cohort

Authors

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ABSTRACT

Background: Stunting is highly prevalent in children under 5 years of age, especially in low and middle-income countries, with majority achieving catch-up growth (CUG) in subsequent years. CUG can be associated with development of obesity and abnormal biochemical profiles, which is being investigated in this current study in a birth cohort in Southern India.

Methods: An Indian birth-cohort recruited between 2010 and 2012 from urban slums in Vellore, India, was followed up at both 9 and 12 years of age. Along with anthropometric and cognitive measurements, blood analyses evaluated fasting lipid and glucose profiles. Children were divided into groups based on stunting at each time point as well as catch-up growth, and a regression model was utilised to evaluate their association with metabolic profiles.

Results: At 2 years, 94/203 (46.31%) children were stunted, out of whom 39.36% caught up in stature at 5 years and 38.3% at 9 years of age. Height, weight, body mass index (BMI), and waist circumference increased significantly between 9 and 12 years of age. Among 9-year-olds, 82.6% had at least one lipid abnormality, which increased to 90.1% by 12-years, specifically in triglycerides and HDLc. CUG did not affect lipid or sugar profile. Linear mixed models showed that concurrent body weight, BMI and waist circumference were associated with high triglycerides and low HDLc.

Conclusion: Concurrent weight, BMI and waist circumference influencing these changes highlight probable abdominal fat predominance guiding these patterns rather than CUG. Further studies can explore these patterns in malnourished children with CUG.





ABSTRACT ID: RP 111

Title	Family ile of children and its association with child abuse.
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ABSTRACT

Introduction: As per WHO, child abuse is defined as all forms of physical and/or emotional illtreatment, sexual abuse, neglect or negligent treatment. Violence at home is found to be associated with being a victim of abuse. Family factors such as parents' age, level of education, family size and structure contribute to child abuse.

Objective: To determine family characteristics of children with history of child abuse.

StudyDesign: Descriptive study conducted on children with alleged history of abuse

Participants: 65 children with alleged history of abuse who presented to a tertiary hospital in an Urban city of a Southern State in India.

Procedure: After taking informed consent from the participants, family demographics such as family type, family size, parent's education, employment status and socio-economic status was collected using a proforma.

Results: From the study done, statistical significance (P value of 0.029) was noted between the family status and the type of abuse. Sexual abuse (75%) predominated among children who stayed with both the parents and in 50% cases the perpetrator was known to the child and family. Unemployment, low socio-economic status of the family resulted in the child facing sexual abuse in 65% and 62% of the cases respectively. Alcohol abuse among the parents made the child prone to multiple abuse(41%).

Conclusion: Certain Family demographics are risk factors for child abuse and should be considered while managing a case of child abuse.





ABSTRACT ID: RP 112

Title	Audit on antibiotic consumption before and after implementation of an antibiotic specific prescription chart in a tertiary care Paediatric unit.
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ABSTRACT

Introduction: Antimicrobial consumption increases Antimicrobial Resistance (AMR) with impact on patient outcome, health care cost and environment.

Objectives: To describe antibiotic consumption before and after implementation of an antibiotic specific prescription chart.

Methods: This two staged clinical audit was conducted at the University Paediatric Unit of Lady Ridgeway hospital, from 1st to 28th February 2025 (pre intervention) and 23rd May to 22nd June 2025 (Post intervention). Data regarding antibiotic consumption were collected using a Microsoft Excel sheet, before and after implementation of an antibiotic specific prescription chart. Analysis was done by Microsoft Excel application to calculate Days of therapy (DOT), Length of therapy (LOT) and Defined Daily Doses (DDD) per 1000 patient days.

Results: 749 and 752 patients were included in pre and post stages respectively with 13.6% reduction in total patient days. DOT and LOT per 100 patient days were reduced by 37.3% and 41.9%. DDDs per 1000 patient days were 39.9% less after the intervention. Parenteral: oral ratio (pre-0.68, post 0.66) and mean number of antibiotics per patient showed no changes. DDDs in ccess category antibiotics were pre: post- 200.74: 93.33 and that of watch category were pre: post- 311.38: 171.77.

Conclusions: Significant improvement in antibiotic usage was observed in post implementation stage with opportunity to modify the route of administration, indicating the importance of long term utilization of the chart to sustain the changes.





ABSTRACT ID: RP 113

Title

From presence to participation: Empowering mothers in the Neonatal Intensive Care Unit through a quality Improvement Initiative

Authors

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ABSTRACT

Background: Maternal participation in neonatal care is a key component of family-centred care (FCC) in Neonatal Intensive Care Units (NICUs) and is associated with improved neonatal outcomes and maternal wellbeing. However, maternal involvement in Sri Lankan NICUs remains limited. A baseline assessment conducted in two tertiary care Sri Lankan NICUs identified low levels of maternal participation.

Objective: To evaluate the interim impact of targeted interventions designed to improve maternal participation in neonatal care in the same settings.

Methods: A prospective quality improvement study was conducted in two tertiary care NICUs in Sri Lanka. Maternal participation was assessed using the Index of Parent Participation in NICU (IPP-NICU) tool. Mothers of neonates admitted for ≥48 hours were recruited. Baseline data from the earlier study included 300 mothers. Quality improvement interventions included staff training, structured maternal education, and supervised maternal participation in care conducted over six months. An interim reassessment was done during next three months among 83 mothers using the same methodology.

Results: Median IPP-NICU scores increased significantly from 13 to 20 ($p < 0.001$). Median domain scores improved in activities of daily living from 2 to 3 ($p < 0.001$) and technical tasks from 1 to 5 ($p < 0.001$). Median scores for advocating for newborn health increased from 6 to 7 ($p = 0.06$), while providing comfort remained unchanged at 5. The proportion of mothers achieving scores ≥20 increased from 13% to 50% ($p < 0.001$).

Conclusion: This interim evaluation demonstrates improvement in maternal participation following targeted interventions. Further quality improvement activities and assessments are required to achieve sustained improvements.





ABSTRACT ID: RP 114

Title	Outcome of sepsis due to multidrug-resistant bacterial sepsis in a pediatric oncology unit in India: An eight-year retrospective analysis
Authors	Bindu.C ¹ , Jyothi M ¹ , Somdipa Pal ¹ , Sidharth Totadri ¹ , Vandana Bharadwaj ¹ , Anand Prakash ¹
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ABSTRACT

Introduction: Multidrug-resistant organisms (MDRO) cause significant morbidity and mortality in hospitalised patients, particularly true in paediatric oncology units, especially in low- and middle-income countries.

Objectives: To study the microbiological spectrum and outcomes of children on chemotherapy with MDRO sepsis.

Methods: Retrospective chart review of all children with blood culture-proven MDRO sepsis diagnosed between October 2017 and August 2025 was performed.

Results: During the study period, 574 children on chemotherapy had total of 1886 febrile episodes. Of these, 324 episodes were blood culture-positive sepsis (Gram positive cocci (GPC) -130 (40%), GNB – 171 (52.77%), Fungi – 21 (6.5%). Among the 171 gram-negative sepsis, 64 were MDRO (37.42%), including 35 multidrug resistant, 28 extreme-drug resistant, and 1 pan-drug resistant organisms. The most common GNB-MDRO was *Klebsiella pneumoniae* (n=24, 37.5%). Hemodynamic instability, intensive care requirement seen in 43 (67.2%), 32 (50%) respectively. Nearly a third i.e., 22 (34.37%) developed multi-organ dysfunction (MODS), and a quarter, 17 (26.56%) succumbed to MODS. Among the 130 episodes of GPC sepsis, 86 (66.15%) were coagulase-negative staphylococcus (CONS). Nearly two-thirds of CONS i.e., 52 (60.5%) and half of staphylococcus aureus i.e., 7 (43.75%) were methicillin-resistant. 7 (63.6%) of enterococcus infections were vancomycin resistant. Among them, Intensive care, inotropic support required in 25 (37.87%), 20 (30.3%). 8 (12.12%) developed MODS, and all 8 (12.12%) succumbed.

Conclusion: MDRO contributes significantly to morbidity and mortality in paediatric oncology units. Nearly half of those with MDRO-GNB & a third of those with GPC-MDRO require intensive care, with 26% and 12% mortality, respectively.





ABSTRACT ID: RP 115

Title	Clinical Utility of Next-Generation Genomic Sequencing in Paediatric Clinical Genetics: A Cohort of 100 Cases
Authors	Damitha Liyanaarachchi ¹ , Chandanamali Punchihewa ¹ , Vindya Subasinghe ² , Tharmini Sundralingam ¹ , Chandika Ruwan ¹
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ABSTRACT

Introduction: Next-generation sequencing (NGS) has transformed the diagnosis of rare paediatric disorders with heterogeneous and overlapping phenotypes. We evaluated the diagnostic yield and clinical utility of genome-scale sequencing across a broad spectrum of paediatric indications.

Case presentation: We analysed 100 singleton NGS tests performed in children aged 1 day to 18 years (53 males, 47 females). Testing included 90 whole-exome sequencing (WES), 5 whole-genome sequencing (WGS), and 5 blended genome-exome sequencing (BGE). Actionable pathogenic/likely pathogenic (P/LP) variants were identified in 84% of cases. A phenotype-related molecular diagnosis was established in 63%, while 22% had incidental or carrier-only findings; 16% were negative.

Among phenotype-positive cases, zygosity included heterozygous (n=31), homozygous (n=21), hemizygous (n=4), and compound heterozygous variants (n=7), with trans phase confirmed in 6 cases through orthogonal testing or bioinformatic phasing. Inheritance patterns were predominantly autosomal dominant (n=31) and autosomal recessive (n=28), with fewer X-linked cases. Missense variants were the most frequent (54.3%), followed by nonsense (20.0%) and splice-site variants (11.4%), with frameshift, indel, and CNV events collectively accounting for 14.3%.

The highest diagnostic yield was observed in neurodevelopmental and epileptic disorders (23/34), followed by metabolic/endocrine (11/17) and neuromuscular/peripheral nervous system disorders (9/12). WGS achieved a 100% diagnostic yield, including the identification of a clinically relevant CNV missed on WES.

Conclusions: Genome-scale sequencing demonstrates a high diagnostic yield and substantial clinical impact in paediatric rare diseases, ending diagnostic odysseys, enabling targeted management, and supporting family counselling. Strategic use of WGS complements WES, particularly in unresolved cases.





ABSTRACT ID: RP 116

Title

Genetic Profiling of Progressive Familial Intrahepatic Cholestasis (PFIC); The First Report From Sri Lanka

Authors

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ABSTRACT

Introduction: Progressive familial intrahepatic cholestasis (PFIC) comprises a group of autosomal recessive disorders affecting bile acid transport.

Objective: We aimed to characterize the clinical and molecular spectrum of PFIC via genomic confirmation.

Methods: A retrospective review was conducted on the PFIC database (2020–2025) maintained following consent, at the Colombo North Centre for Liver Diseases Sri Lanka. Data on demographics, clinical presentation, investigations, histology, and outcomes were analyzed. Whole-exome sequencing (WES) was performed and variant interpretation incorporated ClinVar, multiple in silico prediction tools (SIFT, PolyPhen-2, MutationTaster), population frequencies from gnomAD, and ACMG-AMP guidelines.

Results: Of the 13 children with genetically confirmed PFIC, the median age was 19 months (range 7 months – 13 years). The majority were females (11/13; 84.6%). PFIC3 was the most prevalent subtype (6/13; 46.1%), followed by PFIC2 (4/13; 30.7%), PFIC1 (2/13; 15.3%), and PFIC10 (1/13; 7.7%) corresponding to variants in ABCB4, ABCB11, ATP8B1 and MYO5B genes, respectively. Nine patients carried homozygous variants, while four had compound heterozygous variants. Of the variants detected, 2 were classified as pathogenic/likely pathogenic, while 10 were variants of uncertain significance (VUS). One homozygous missense variant was a novel mutation (ENST00000263817.6) in the ABCB11 gene. The majority presented with decompensated chronic liver disease while one presented with acute liver failure. Histology revealed canalicular cholestasis with variable fibrosis and giant cell transformation.

Conclusion: This review shows that PFIC is recognized as a cause of chronic cholestatic liver disease among children in Sri Lanka of which the diagnosis is now unveiled with the availability of WES.





ABSTRACT ID: RP 117

Title	Somatic Mosaic Variants in RAS-MAPK Identified in Tuberous Sclerosis Complex Cortical Tubers Using Stereoelectroencephalography Electrode-Based Tissue
Authors	Xinyu Cao ¹ , Wenrong Ge ² , Lin Wan ¹ , Guang Yang ¹
Affiliations	¹ Chinese PLA General Hospital, China ² Beijing Friendship Hospital, China

ABSTRACT

Introduction: Tuberous sclerosis complex (TSC) is characterized by cortical tubers, with epilepsy occurring in approximately 80-85% of patients. Although the "second-hit" hypothesis of biallelic TSC1/TSC2 inactivation has been proposed to explain tuber formation, the complete genetic architecture remains unclear.

Objectives: To investigate somatic mosaic variants in TSC cortical tubers using brain tissue obtained from stereoelectroencephalography (SEEG) electrodes.

Methods: We prospectively enrolled 8 patients with drug-resistant epilepsy and TSC who underwent SEEG-guided radiofrequency thermocoagulation. Genomic DNA was extracted from electrode-adhering brain tissue and subjected to whole-exome sequencing at a mean depth of 1000×, with candidate variants validated by amplicon sequencing.

Results: Among the 8 patients (5 males; 2 with germline TSC1 mutations and 6 with TSC2 mutations), somatic mosaic variants in mTOR pathway-related genes were identified in 2 patients. Patient 2 harbored a PTPN11 missense variant (p.Asp61His, VAF 8.1%) with a germline TSC1 nonsense mutation. Patient 3 harbored a MAPK1 missense variant (p.Pro247Leu, VAF 3.7%) with a germline TSC2 frameshift mutation. Both patients presented with focal cortical dysplasia type IIb-like lesions with transmantle sign. Notably, no classic TSC1/TSC2 second-hit mutations were detected. Functional predictions indicated both variants are gain-of-function mutations enhancing RAS-MAPK signaling, increasing inhibitory phosphorylation of the TSC complex through a "dual-hit" mechanism.

Conclusions: We propose a third pathogenic mechanism for TSC cortical tuber formation characterized by low-level somatic mosaicism in mTOR pathway regulators rather than classic TSC1/TSC2 second hits. This "pathway convergence" model provides a new framework for understanding phenotypic heterogeneity in TSC.





ABSTRACT ID: RP 118

Title	Efficacy and Tolerability of Early Assessment of Epileptic Spasms to Guide Sequential Treatment in Children with Infantile Epileptic Spasms Syndrome : A Nested Case-Control Study
Authors	Xinyu Cao ¹ , Lin Wan ¹ , Guang Yang ¹ , Guang Yang ¹
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ABSTRACT

Objective: To evaluate the effect of adding vigabatrin (VGB) following a 7-day assessment of adrenocorticotrophic hormone (ACTH) treatment on initial response in children with infantile epileptic spasms syndrome (IESS), and its safety profile.

Methods: This retrospective cohort study included children with non-tuberous sclerosis complex (non-TSC)-related IESS treated with ACTH at the General Hospital of the People's Liberation Army between June 2018 and March 2025. After 7 days of ACTH treatment, patients in whom VGB was added formed the sequential treatment group; those continuing ACTH monotherapy served as the control group. We compared initial response rates between groups and analyzed outcomes among children who continued to experience epileptic spasms (ES) on day 7. The incidence of symptomatic vigabatrin-associated brain abnormalities on MRI (VABAM) was recorded.

Results: Sequential treatment significantly improved initial response rates compared with monotherapy (78.1% [25/32] vs. 41.2% [108/262]). Among children with persistent ES on day 7, sequential VGB combination therapy significantly improved initial response rates compared with ACTH monotherapy (66.7% [14/21] vs. 13.1% [23/176]). Multifactorial analysis with propensity score matching showed a higher response rate with sequential treatment (OR=13.75; 95% CI, 4.26-44.38). Five children receiving sequential treatment developed symptomatic VABAM-like manifestations.

Conclusions: Assessing ES persistence after 7 days of ACTH treatment and deciding on VGB addition may effectively improve initial response in children with non-TSC-related IESS. ACTHVGB combination may cause short-term VABAM-like manifestations, which may resolve spontaneously with dose reduction or temporary discontinuation.





ABSTRACT ID: RP 119

Title

AI-Assisted Detection of Epileptic Spasms Using EEG-Video Analysis

Authors

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ABSTRACT

Introduction: Epileptic spasms (ES) detection remains challenging due to subtle ictal manifestations and limited specialized expertise, particularly in resource-limited settings. Automated diagnostic tools could address these critical gaps in pediatric epilepsy care.

Objectives: To develop and validate an AI diagnostic tool using hybrid EEG-video signals for automatic ES detection.

Methods: This retrospective cohort study with internal cross-validation and multi-center external validation was conducted from July 2022 to May 2025. We included 252 patients with ES from Chinese PLA General Hospital and 60 from three other centers. A multimodal fusion approach combining video and electrophysiological signals was developed. Internal cohort comprised 212 patients (723.4 hours video-EEG, 7,348 ES and 643,215 non-ES segments). Clinical validation included 100 patients across four datasets (212.2 hours, 5,709 ES and 185,207 non-ES segments) plus 78 controls without ES for false alarm analysis. Primary outcomes included sensitivity, specificity, accuracy, precision and F1-score versus electroencephalographer interpretation.

Results: In internal cross-validation, the hybrid model achieved superior performance (PRAUC= 0.7334, ROC-AUC=0.9820). In clinical validation, the model demonstrated sensitivity (0.735) and specificity (0.995) comparable to experienced electroencephalographers. With AI assistance, electroencephalographers showed improved sensitivity trends, with one rater improving from 0.620 to 0.792. For subtle ES detection, machine-assisted recognition significantly improved sensitivity by 16–21% ($p<0.01$). The model maintained low false alarm rates (0.16‰) across different populations.

Conclusions: This AI tool achieves clinical performance comparable to senior electroencephalographers for ES detection, with greater robustness in detecting subtle ES. When used collaboratively, it enhances diagnostic sensitivity while maintaining high specificity.





ABSTRACT ID: RP 120

Title	The Status of Occupational Death Avoidance and Potential ile Analysis Among PICU Nurses in Hubei Province
Authors	Jinxiu Chen ¹ , Yun Jiang ¹
Affiliations	¹ China

ABSTRACT

Introduction: Nurses' Occupational Death Avoidance (ODA) reflects their multidimensional responses in death-related contexts. Understanding ODA among Pediatric Intensive Care Unit (PICU) nurses is crucial for improving their coping skills and palliative care quality.

Aim: This study aimed to investigate ODA status, identify its latent profiles, and explore the impact of perceived interpersonal exchange and information competency on ODA.

Methods: A cross-sectional survey was conducted among 542 PICU nurses from 15 tertiary hospitals in Hubei Province, China (Dec 2020-Jan 2021). Data were collected using the Nurses' Occupational Death Avoidance Scale (NODAS), Perceived Interpersonal Exchange Questionnaire, and Information Competency Scale. Latent profile analysis and multivariate logistic regression were used.

Results: Three NODAS profiles were identified: low (36.34%), medium (47.42%), and high (16.24%). Higher perceived interpersonal exchange and information competency were significantly associated with lower ODA. Nurses with 6-10 years of PICU experience were significantly less likely to exhibit high ODA (OR=0.301, p=0.015).

Conclusion: ODA among PICU nurses falls into three subgroups. Those with 6-10 years of experience, higher interpersonal exchange, and information competency demonstrate lower ODA.





ABSTRACT ID: RP 121

Title	The Status of Perception of interpersonal exchange communication Among PICU Nurses in Hubei Province and Latent ile Analysis
Authors	Yun Jiang ¹ , Jinxiu Chen ¹
Affiliations	¹ China

ABSTRACT

Introduction: Effective interpersonal communication is crucial for teamwork and patient safety in the high-stakes Pediatric Intensive Care Unit (PICU). However, the patterns and influencing factors of PICU nurses' perception of this exchange remain unclear, necessitating a person-centered investigation.

Objective: To explore the status and latent profiles of Perception of interpersonal exchange communication among PICU nurses, and to analyze the influencing factors of different profiles.

Methods: A stratified sampling method was employed to select 570 PICU nurses from 15 tertiary hospitals in 13 regions of Hubei Province between December 2024 and January 2025. Data were collected using a general information survey, Perception of interpersonal exchange communication between medical staff and nurses, The Nursing Information Competency Assessment Scale, Professional Quality of Life Scale. Latent profile analysis and multivariate logistic regression were conducted to analyze the influencing factors of different profiles.

Results: The perception of interpersonal exchange communication level of PICU nurses in Hubei Province was classified into three latent profiles: low level perception (11.7%), medium level perception (42.25%), and high level perception (46.68%). Multivariate logistic regression analysis indicated that nurses with higher information competency, no compassion fatigue, or mild compassion fatigue were more likely to belong to the medium and high perception profiles (all $P < 0.05$) compared to the low perception profile.

Conclusion: The perceived interpersonal exchange among PICU nurses shows latent heterogeneity. Nursing managers should implement targeted strategies to enhance communication and team interaction quality.





ABSTRACT ID: RP 122

Title	Procedural State Anxiety in Pediatric Leukemia Patients Undergoing Bone Marrow Aspiration or Lumbar Puncture: A Cross-Sectional Study Using the Chinese Version of the State Anxiety Scale for Children
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ABSTRACT

Introduction: This study aimed to evaluate procedural state anxiety and identify associated socio-demographic and clinical factors in Chinese pediatric leukemia patients.

Methods: A convenience sample of 119 patients aged 8–18 years with acute lymphoblastic leukemia (ALL) or acute myeloid leukemia (AML) undergoing bone marrow aspiration or lumbar puncture was recruited from a tertiary pediatric oncology center in China. State anxiety was assessed using the Chinese Version of the State Anxiety Scale for Children. Data were analyzed using R software (version 4.4.3). Non-normally distributed variables were presented as median (P25, P75). Group comparisons were performed according to the above socio-demographic and clinical variables using the Mann–Whitney U test for two-group comparisons and the Kruskal–Wallis test with Dunn's post-hoc test for variables with more than two categories; $P < 0.05$ was considered significant.

Results: The overall median CSAS-C score was 27.0 (21.0, 32.0), indicating mild to moderate anxiety. Significant higher anxiety was associated with younger age, primary school education, AML diagnosis, and first-time procedures ($P < 0.001$).

Conclusion: Procedural state anxiety is common among Chinese pediatric leukemia patients undergoing BMA or LP, with significantly higher levels observed in younger children, those with lower education levels, AML diagnosis and first-time procedures. These findings highlight the need to identify and focus on these high-risk groups in clinical practice.





ABSTRACT ID: RP 123

Title

Impact of Haploidentical Donor Age on Outcomes of Pediatric AML Transplantation

Authors

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ABSTRACT

Introduction: Haploidentical hematopoietic stem cell transplantation (haplo-HSCT) is an important curative strategy for pediatric acute myeloid leukemia (AML), but evidence on the effect of donor age is limited.

Objectives: To evaluate the impact of related haploidentical donor age on engraftment, GVHD, relapse, and survival in children with AML.

Methods: We retrospectively analyzed pediatric AML patients receiving related haplo-HSCT at our center, grouped by donor age ≤ 35 vs >35 years. Outcomes were compared and prognostic factors assessed using multivariable Cox regression.

Results: In total, 241 patients were included (≤ 35 : $n=165$; >35 : $n=76$). Recipients in the ≤ 35 group were younger (median 75 months [9.47–185] vs 130 months [20–205]); other baseline variables and transplant strategies (sex, ABO, remission/MRD, conditioning, GVHD prophylaxis) were comparable. Median follow-up was 24 months (1–90). Engraftment was similar between groups. The ≤ 35 donor group had better OS (87.54%, 95%CI 0.824–0.930 vs 71.84%, 0.607–0.850; $P=0.018$), RFS (83.9%, 0.782–0.899 vs 70.5%, 0.596–0.833; $P=0.047$), and GRFS (79.1%, 0.729–0.857 vs 61.6%, 0.505–0.752; $P=0.010$). Grade II–IV aGVHD (27.9% vs 28.3%, $P=0.948$), CIR (11.9% vs 17.4%, $P=0.357$), and NRM (8.7% vs 16.7%, $P=0.077$) did not differ. On multivariable analysis, donor age >35 independently predicted worse OS (HR 1.041, 95%CI 1.004–1.079; $P=0.030$) and GRFS (HR 1.038, 95%CI 1.006–1.064; $P=0.023$).

Conclusions: Donor age ≤ 35 years was associated with superior OS, RFS, and GRFS without higher aGVHD or delayed engraftment, supporting preference for younger related haploidentical donors when options exist.





ABSTRACT ID: RP 124

Title	Clinical Outcomes of Allogeneic Hematopoietic Stem Cell Transplantation in Pediatric AML: Long-Term Follow-Up From China
Authors	Qingwei Wang ¹ , Li Gao ¹ , Jun Lu ¹ , Peifang Xiao ¹ , Jie Li ¹ , Shaoyan Hu ¹
Affiliations	¹ Children's Hospital of Soochow University, China

ABSTRACT

Background: Allogeneic hematopoietic stem cell transplantation (allo-HSCT) has improved outcomes in pediatric acute myeloid leukemia (AML), yet post-transplant relapse remains the main barrier to long-term cure.

Aims: To summarize outcomes after first allo-HSCT in pediatric AML and identify clinical and molecular predictors of relapse and survival.

Methods: We retrospectively analyzed 452 children with AML receiving first allo-HSCT at the Children's Hospital of Soochow University (2011–2025). Endpoints were overall survival (OS), event-free survival (EFS), GVHD/relapse-free survival (GRFS), cumulative incidence of relapse (CIR), and non-relapse mortality (NRM). Outcomes were compared by transplant type. Molecular features, induction response, and pre-HSCT morphological remission/MRD status were evaluated. Multivariable models assessed independent prognostic factors.

Results: Median age was 90 months (range 4.7–205); 248 were male. Two-year OS, EFS, and GRFS were 83.0% (95% CI 0.794–0.868), 78.9% (0.750–0.830), and 71.9% (0.677–0.764). CIR was 13.37%±3.47% and NRM 9.59%±3.60%. Transplant type was not associated with outcomes. Pre-HSCT morphological remission (P=0.003) and MRD negativity (P<0.001) reduced relapse risk. Relapse varied by genotype: CBFA2T3::GLIS2 or TLS::ERG fusions had >80% relapse; KMT2A::AF10 had 19.0% (4/21); spliceosome-mutated AML had 4.2% (1/54). Multivariable analysis identified myeloid sarcoma, M7 phenotype, induction non-response, and pre-HSCT PR/NR as adverse factors, while post-2019 transplantation and younger donor age were protective for relapse-free survival.

Conclusions: First allo-HSCT yields favorable survival in pediatric AML, but relapse remains the leading cause of failure. Pre-HSCT disease control and fusion-defined high-risk subtypes (CBFA2T3::GLIS2, TLS::ERG) enable relapse stratification and support intensified relapseprevention strategies.





ABSTRACT ID: RP 125

Title

Efficacy and Safety of Intraosseous Access in Neonates: A Systematic Review

Authors

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ABSTRACT

Background: Intraosseous (IO) access serves as a viable rescue route during neonatal resuscitation when umbilical venous catheterization proves difficult; however, evidence supporting its clinical application remains insufficient.

Objective: To systematically evaluate the clinical application, efficacy, and safety profile of IO access in neonates, thereby providing evidence to inform clinical practice

Methods: A systematic search of Ovid MEDLINE, Ovid EMBASE, EBSCO CINAHL Complete, the Cochrane Library, and SinoMed was conducted from database inception to February 28, 2025. Studies reporting IO access in neonatal populations were included. Primary outcomes were first-attempt success, overall success, and complication rates.

Results: Of 2,616 screened records, 18 studies comprising 329 neonatal patients were included (12 case reports, 4 case series, and 2 cross-sectional surveys). The youngest patient was 1 day old. Indications were predominantly respiratory (51.4%) and circulatory (26.8%) conditions. Devices used were powered (73.9%), manual (24.9%), and spring-loaded (1.2%), with the proximal tibia as the main insertion site (96.0%). The first-attempt success rate was 72.9% (156/214), and the overall success rate was 80.9% (199/265). Among 320 IO procedures with documented safety outcomes, the overall complication rate was 24.1%, including extravasation/infiltration (17.3%) and soft-tissue ischemia/necrosis (2.5%). One case of compartment syndrome and one case of extravasation-related necrosis ultimately required amputation.

Conclusion: Neonatal IO access achieves an overall success rate of approximately 81% but carries a clinically significant complication burden (24.1%), including rare limb-threatening events. IO placement should therefore be considered only in life-threatening neonatal emergencies when alternative vascular access cannot be rapidly established.





ABSTRACT ID: RP 126

Title

Efficacy of the Natural Erection Test for Assessing Chordee Angle in Paediatric Hypospadias

Authors

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ABSTRACT

Introduction: Accurate assessment of ventral penile curvature (chordee) is a critical step in hypospadias reconstructive surgery. The Artificial Erection Test (AET) remains the intraoperative gold standard, yet it involves invasive intra-cavernosal saline injections that carry well-documented risks, including hematoma, fibrosis, and tissue necrosis. The Natural Erection Test (NET) provides a completely non-invasive, physiological alternative.

Objectives: To determine the clinical efficacy of NET in successfully inducing penile erection to calculate the chordee angle in paediatric hypospadias patients, and to compare its measurement accuracy directly against AET.

Methods: This prospective observational study evaluated 30 boys (aged <18 years) undergoing surgical hypospadias repair. NET was manually induced via simultaneous compression of the dorsal venous drainage and perineal massage. Angles were measured intraoperatively using a calibrated sterile goniometer. NET and AET measurements were compared using the Wilcoxon signed-rank test and Pearson correlation.

Results: NET successfully induced adequate erection in 93.3% (28/30) of the cohort, including a 100% success rate in distal hypospadias cases. The median induction time was remarkably rapid at 28.5 seconds. Post-degloving assessments showed excellent agreement between NET and AET angles, with no statistically significant difference ($p=0.1732$) and a near-perfect correlation ($r=0.94$, $p<0.001$). Both techniques recorded zero complications.

Conclusions: NET is a highly effective, safe, and rapid non-invasive alternative to AET. It reliably mirrors gold-standard measurements post-degloving, eliminating injection-related risks during routine hypospadias repair.





ABSTRACT ID: RP 127

Title

Pharmacokinetic/Pharmacodynamic Analysis of Long-Acting PEGylated Recombinant Human Growth Hormone in Children with Idiopathic Short Stature

Authors

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ABSTRACT

Introduction: Idiopathic short stature (ISS) is a common cause of pediatric short stature, accounting for 60–80% of pediatric short stature cases. Long-acting PEGylated recombinant human growth hormone (PEG-rhGH) has been approved for ISS, but its dose–exposure–response relationship remains unclear.

Objectives: This study aimed to develop a population PK/PD model for PEG-rhGH in children with ISS using quantitative pharmacology and to characterize the dose–exposure–response relationship.

Methods: Data from three studies were integrated: a sparse PK/PD sampling study (NCT03221088; n=360), a retrospective–prospective cohort (NCT06110910; n=1,168), and a dose-ranging study (ChiCTR2400087245; n=101). Direct bridging (external validation of a GHD model) and indirect bridging (joint population modeling) were performed using NONMEM. Exposure–response analyses evaluated height velocity (HV) and height SDS (HTSDS).

Results: The ISS PopPK/PD model exhibited adequate goodness-of-fit, as evidenced by the good agreement between observed and predicted values and the uniform distribution of residuals. HV was driven by ΔIGF-1 SDS ($\beta=0.33$, $p<0.001$) and baseline bone age ($\beta=-0.24$, $p<0.01$). HTSDS showed dose-dependent improvements: 0.25 mg/kg/wk ($\beta=0.25$, $p<0.05$) and 0.3 mg/kg/wk ($\beta=0.25$, $p<0.05$); 0.3 mg/kg/wk achieved HTSDS closest to norms.

Conclusions: ISS children exhibit distinct PD sensitivity and growth response limits compared to GHD, supporting higher dose requirements. This study provides quantitative evidence for dose optimization of long-acting growth hormone in ISS.





ABSTRACT ID: PP 001

Title	The best evidence summary of dietary intervention in children with henoch schönlein purpura
Authors	Dongmei Ran ¹ , Huizhi Ou ¹ , Fenzhen Hu ¹
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ABSTRACT

Objective: To identify, synthesize, and evaluate the best available evidence for dietary interventions in children with henoch-schönlein purpura (HSP), thereby providing a clinical basis for healthcare professionals.

Methods: A systematic review was conducted across domestic and international databases and professional association websites, covering literature on dietary management of HSP from the database's establishment to November 2025. The literature included randomized controlled trials (RCTs), systematic reviews, expert consensus statements, and guidelines. Two researchers independently assessed the quality of the included studies and extracted evidence.

Results: A total of 14 studies were identified, comprising 9 RCTs, 1 systematic review, 2 expert consensus statements, and 2 guidelines. Finally, 18 best evidence were formed, covering 4 aspects: team building, health education, step diet and diet monitoring.

Conclusion: This study summarizes the best evidence of diet intervention for children with HSP, which can provide reference for clinical medical staff to carry out diet guidance for such patients.





ABSTRACT ID: PP 002

Title

Domains of Normal Childhood Sleep Across International Guidelines: A Systematic Review

Authors

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ABSTRACT

Introduction: Sleep is fundamental to growth, neurodevelopment, emotional regulation, learning, and immune competence in children. Inadequate or dysregulated sleep is associated with behavioural difficulties, poor academic performance, cardio-metabolic risk, and impaired mental health. Although multiple international bodies publish childhood sleep recommendations, the scope and domains addressed vary, and structured comparisons remain limited.

Objectives: To systematically map and compare domains of normal sleep health across major international childhood sleep guidelines and identify areas of consensus and divergence.

Methods: A structured review of guidelines from ten organizations was conducted, including the American Academy of Sleep Medicine, American Academy of Paediatrics, World Health Organization, National Sleep Foundation, Canadian Paediatric Society, Royal College of Paediatrics and Child Health, Australian Sleep Health Foundation, European Sleep Research Society, Asia-Pacific Paediatric Sleep Alliance, and Japanese Society of Sleep Research. Recommendations were mapped against thirteen predefined domains of sleep health.

Results: Thirteen domains were identified-sleep duration, timing, regularity, quality, environment, hygiene, screen exposure, physical activity, sedentary behaviour, caregiver involvement, health outcomes, cultural context, and pre-sleep routines. Age-specific sleep duration was universally addressed. Behavioural domains were commonly included, while public health frameworks integrated sleep within 24-hour movement paradigms. Cultural and contextual considerations were inconsistently represented.

Conclusions: While consensus exists regarding sleep duration, substantial variability remains across behavioural and contextual domains. Integrating comprehensive sleep health domains may strengthen paediatric counselling, improve guideline clarity, and support culturally adaptable sleep promotion strategies across local and global settings.





ABSTRACT ID: PP 003

Title

Early non-pharmacological Interventions for Children With Epileptic Encephalopathies: A Systematic Review

Authors

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ABSTRACT

Background: Epileptic encephalopathies in childhood are severe disorders characterized by drug-resistant seizures and progressive neurodevelopmental impairment. Early nonpharmacological interventions are increasingly explored as adjunctive strategies to improve seizure outcomes. However, evidence on their effectiveness across different encephalopathy subtypes remains fragmented, warranting a systematic evaluation.

Objectives: To evaluate the impact of early non-pharmacological interventions on improving seizure control in children with epileptic encephalopathies.

Methods: We conducted a systematic review of non-pharmacological interventions for epileptic encephalopathies, up to November 26, 2025, using relevant MeSH terms. Data was manually extracted, and the risk of bias was assessed.

Results: 19 studies met the inclusion criteria. 3 out of 7 cohort studies assessing vagal nerve stimulation (VNS) in Lennox-Gastaut syndrome (LGS); showed meaningful long-term benefit. Eight studies evaluated the effect of ketogenic diet (KD); Cohort data showed significant seizure reduction in LGS, Doose syndrome, and GLUT-1 deficiency and in infants with IESS. One crossover study found significant short-term improvement with KD. Among RCTs, short-term KD provided better early control. The modified Atkins diet (MAD) improved seizures in children aged 1–2 years in one RCT. A case series of cannabidiol showed no significant improvement.

Conclusion: Early non-pharmacological interventions showed mixed effects in epileptic encephalopathies. Overall, dietary therapies appear most effective. The KD demonstrated the most consistent effectiveness, particularly in GLUT-1 deficiency, Doose syndrome, and IESS. VNS produced variable outcomes, with some benefit in LGS. Evidence for MAD was inconsistent, and cannabidiol showed no meaningful benefit.





ABSTRACT ID: PP 004

Title

Community-based rehabilitation for children with cerebral palsy in low- and middle-income countries: A narrative review with relevance to Sri Lanka

Authors

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ABSTRACT

Introduction: Cerebral palsy (CP) is the leading cause of childhood physical disability worldwide. In Sri Lanka, paediatric rehabilitation services are limited mainly to tertiary centers. Community-based rehabilitation (CBR) has been proposed as a strategy to improve access, reduce financial burden and strengthen family involvement. Evidence regarding its efficiency and contextual applicability remains heterogeneous.

Objectives: To synthesise evidence on the efficiency, functional outcomes, caregiver impact and implementation considerations of CBR for children with CP, with specific relevance to Sri Lanka.

Methods: A narrative review was conducted using PubMed, Google Scholar, the Cochrane Library and selected grey literature sources, published between January 2005 and July 2025. Eligible designs comprised randomised controlled trials, quasi-experimental, observational and qualitative studies, systematic reviews and implementation reports. Findings were synthesised thematically across cost-effectiveness, functional outcomes, caregiver impact, community engagement and implementation factors.

Results: The results included 34 peer-reviewed studies and 6 grey literature sources. Seven studies reported reduced household costs without loss of functional gains. Fifteen showed motor and daily activity improvements comparable to facility-based care, while twelve documented reduced caregiver strain and improved parental competence. Task-shifting and community engagement expanded service reach in rural settings. Structured training, supervision and referral mechanisms were identified as critical for sustainability.

Conclusions: Evidence suggests that structured, supervised CBR may improve access and reduce financial barriers while maintaining functional outcomes in selected contexts. However, economic efficiency is contingent on programme quality and integration within existing health systems. In Sri Lanka, careful pilot implementation and context-specific economic evaluation are needed before large-scale adoption.





ABSTRACT ID: PP 005

Title	Clinical laboratory and radiological characteristics of lower respiratory tract infections among children in a tertiary care center.
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ABSTRACT

Introduction: Lower respiratory tract infections (LRTI) are one of the leading causes of morbidity and mortality among children worldwide.

Objectives: This study aims to describe the patterns in clinical presentation, laboratory and radiological characteristics of LRTIs and ascertain their association with disease progression and response to treatment.

Method: A descriptive prospective study was conducted on children aged 1 month to 14 years admitted to Paediatric wards in Colombo North Teaching Hospital Ragama, from 1 March 2025 to 31 December 2025 fulfilling clinical criteria for diagnosis of LRTI. Demographic and clinical details were collected using a data collection sheet.

Results: A total of 88 children (male: 49%, mean age: 5.7-3.4 years) were recruited. The mean duration of symptoms at presentation was 4.8-2.7 days and most common symptoms were cough (100%), rhinorrhea (87%), fever (80%) and difficulty in breathing (49%). Features of respiratory distress, tachypnoea and chest wall recessions were present in 72% and 65% respectively. CRP was elevated in 87% and chest x-ray showed non-alveolar (44%) or alveolar pneumonia (27%) in majority. Poor response to initial antibiotic therapy within 48 hours was significantly associated with age >5 years ($p=0.03$); duration of symptoms >5 days on admission ($p=0.01$); presence of clinical features like chills and rigors, poor appetite, tachycardia, tachypnoea, chest wall recessions, reduced air entry ($p<0.05$ in all); and oxygen saturation <94% ($p=0.02$).

Conclusion: Longer duration of symptoms and features of respiratory compromise and systemic illness were significantly associated with poor response to treatment in children with LRTIs.





ABSTRACT ID: PP 006

Title	Gavisconoma: A Rare Presentation in a Neonate with Projectile Vomiting
Authors	Muhandiram Ralalage Darshika Rathnamali Muhandiram ¹ , Brian Coppin ¹ , Imogen Lee ¹ , Lyn Yeong ¹
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ABSTRACT

Introduction: Gaviscone is an alginate based reflex medication which is commonly used to treat reflux specially in paediatric practice. Gavisconoma is rare cause of projectile vomiting in neonates caused by buildup of Gaviscone used to treat reflux in newborns. Symptoms can mimic pyloric stenosis and other metabolic diseases which makes diagnosis a challenge

Case Presentation: 18 days old male neonate with uncomplicated antenatal and birth history was referred from general practitioner for further investigations of non-bilious projectile vomiting and growth flattening. He has been started on Gaviscone oral liquid for symptoms of mild reflux from day 10 of life.

Examination revealed soft abdomen with mild distention of upper left quadrant without palpable masses. Blood gas analysis, inflammatory markers and electrolytes were within normal range for the age. Ultrasound examination revealed an intra gastric mass 3cm x 2cm size with suggestion of MRI scan for further analysis. MRI abdomen revealed a bezoar formation in the stomach, likely Gavisconoma given the clinical details.

His symptoms resolved after stopping Gaviscone and repeat ultrasound scan after one week showed disappearance of the stomach mass

Conclusion: Gavisconoma is a rare and serious complication in neonates which can be reversible after stopping the medication. A descriptive clinical assessment and early suspicion are important in prevention of complications.





ABSTRACT ID: PP 007

Title	Does the level of theoretical knowledge in Advance Paediatric Life Support (APLS) predict the psychomotor skills assessed during the course?
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ABSTRACT

Introduction: The Advanced Paediatric Life Support (APLS) course is an internationally recognised programme designed to enhance doctors' theoretical knowledge and practical competence in managing paediatric emergencies. Understanding the relationship between knowledge and psychomotor skills is essential to optimise training outcomes.

Objectives: To compare performance at the APLS course among different categories of medical doctors, to assess differences in prior knowledge using pre-test multiple choice question scores, and to determine the association between theoretical knowledge and psychomotor performance.

Methods: A descriptive cross-sectional study was conducted among doctors attending the APLS programme from April to November 2023. Of 117 consenting participants, 108 provided complete data for analysis. Knowledge was assessed using multiple choice questions before and after the course. Psychomotor skills were evaluated using a performance index derived from structured skill assessment scores. As data were not normally distributed, non-parametric methods were applied. The Wilcoxon signed rank test was used to examine associations between knowledge scores and performance index.

Results: Of the participants, 26.9% were from paediatrics or neonatology, 23.1% from emergency medicine, 33.3% from anaesthesia or critical care, and 16.8% from other specialties. Mean pretest score was 69.06% (SD 31.21), post-test score 84.64% (SD 7.89), and performance index 66.35% (SD 7.97). Pre test scores were significantly associated with performance index ($p = 0.002$), while post test scores showed a highly significant association ($p < 0.001$).

Conclusions: APLS training significantly improved theoretical knowledge and demonstrated a strong association with psychomotor performance, highlighting the value of integrated cognitive and skills-based training.





ABSTRACT ID: PP 008

Title	Knowledge and Attitudes Regarding Human Papillomavirus (HPV) infection and Human Papillomavirus Vaccine Among Parents of Children Aged 10–16 Years Attending a Tertiary Care Hospital in Western Province
Authors	Sivakumar Mirshan ¹ , Saraji Wijesekara ¹ , Haritha Madubhashine ¹ , Devindi Madurawala ¹ , Hamsathvani Gnanavelrajah ¹ , Abirame Sriskandarajah ¹ , Lakindu Chiranthan Weerabhahu ¹
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ABSTRACT

Introduction: Human papillomavirus (HPV) is the most common sexually transmitted infection worldwide and a major cause of cervical cancer, as well as anogenital and oropharyngeal cancers and genital warts. Although effective preventive strategies such as Papanicolaou (Pap) smear screening and HPV vaccination are available, coverage of HPV preventive care remains suboptimal. Parental knowledge and attitudes play a crucial role in determining vaccination acceptance and uptake.

Objectives: To assess the level of knowledge and attitudes regarding HPV infection and HPV vaccination among parents of children aged 10–16 years attending Colombo South Teaching Hospital (CSTH).

Methodology: A descriptive cross-sectional study was conducted among 200 parents of children aged 10–16 years attending CSTH, using a consecutive sampling method and a structured self-administered questionnaire. Knowledge levels were categorized using modified Bloom's cut-off, while attitudes were classified based on the mean score. Statistical analysis was performed using SPSS version 25, with significance set at $p < 0.05$.

Results: Most participants were mothers (97%, $n=194$) aged 30–40 years. Poor knowledge regarding HPV infection and vaccination was observed in 84% ($n=168$), while 16% ($n=32$) demonstrated moderate knowledge and none had good knowledge. In contrast, 51.5% exhibited positive attitudes ($n=103$), and 83.5% approved of HPV vaccination for their children. A statistically significant association was identified between knowledge level and the number of children aged 10–16 years (Fisher's exact $p=0.023$).

Conclusion: Despite limited knowledge, parental attitudes toward HPV vaccination were largely positive, highlighting a critical knowledge gap and emphasizing the need for targeted educational interventions to improve informed decision-making and sustain vaccine confidence.





ABSTRACT ID: PP 009

Title

Identifying early-life risk factors for infant food allergy using an grey wolf optimizer-based feature selection method

Authors

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ABSTRACT

The global incidence of infant food allergy is rising, yet effective primary prevention strategies remain elusive. Identifying key early-life risk factors is critical for prevention, but the highdimensional and complex nature of these exposures poses a significant challenge for conventional statistical methods. To address this gap, this study proposes a novel feature selection method based on a Grey Wolf Optimizer (GWO). By incorporating a non-linear control parameter, an adaptive diversity-driven mechanism, and a cryptobiosis-inspired strategy, the algorithm effectively overcomes the limitations of the standard GWO. The superiority of EGWO was demonstrated against other state-of-the-art algorithms on the CEC 2017 benchmark functions. We applied the binary version of this method to a prospective birth cohort of 484 mother-infant pairs. The analysis successfully identified a minimal yet highly predictive set of five key risk factors: gestational diabetes, frequent maternal alcohol consumption during pregnancy, infant azithromycin use within six months, and the pre-pregnancy BMI of both parents. These findings provide core evidence for the etiology of food allergy, pointing to key regulatory pathways in early-life immune development. Our work highlights the utility of advanced computational methods for pinpointing crucial biomarkers and provides a datadriven foundation for precise, preconception-initiated prevention strategies.





ABSTRACT ID: PP 010

Title	Clinical Spectrum of Coconut Allergy in Sri Lankan Children
Authors	Inoka Sepali Aberathna ¹ , Thushali Ranasinghe ² , Harshani Chathurangika ¹ , Jeewantha Jayamali ¹ , Neelika Malavige ² , Chandima Jeewandara ¹
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ABSTRACT

Introduction: An increased prevalence of coconut allergy has been reported among children with food allergy in Sri Lanka, which is a significant concern given the extensive use of coconut in Sri Lankan cuisine.

Objective: The objective of this study was to characterize the spectrum of allergic reactions to coconut from a Sri Lankan cohort.

Methods: 14 children who had a history of coconut allergy, referred to our allergy clinic, were recruited to the study. Socio-demographic data and relevant clinical data were gathered via using an interviewer-administered questionnaire. Skin prick testing (SPT) and coconut-specific IgE (ImmunoCAP) were performed as diagnostic tests.

Results: 7/14 children were females, and the median age of the cohort was 5 years (IQR: 6 months–18 years). The allergy began with the first introduction of coconut during weaning, with immediate symptom onset (< 30 minutes). All patients had urticaria, 71.43% had itching and angioedema, 35.71% had vomiting, 42.85% had swelling of lips, 21.42% had dizziness, difficulty in breathing, 14.29% had abdominal pain, diarrhea, and loss of consciousness. 5/14 children had a history of anaphylaxis with mild to moderate anaphylaxis after consuming coconut. 8/14 patients had severe atopic dermatitis, with an average severity score of 12/15 based on the SCORAD scale. All 14 patients had allergies to more than one food.

Conclusion: Coconut allergy appears to present early with clinically significant immediate reactions, often in the context of severe atopic dermatitis and polysensitization to multiple foods.





ABSTRACT ID: PP 011

Title

Pathogenic Hypomorphic IRAK4 Variants ive Immune Dysregulation by Uncoupling TLR Tolerance and Selectively Activating NF- κ B, MAPK and IRF Pathways

Authors

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ABSTRACT

Interleukin-1 receptor-associated kinase 4 (IRAK4) is a key signaling mediator downstream of Toll-like/IL-1 receptors (TLR/IL-1R). While loss-of-function (LOF) IRAK4 mutations cause immunodeficiency with impaired TLR agonist responses, the mechanisms linking IRAK4 variants to autoinflammatory/autoimmune phenotypes remain unclear. Here, we identified novel heterozygous IRAK4 variants in three unrelated families with systemic autoinflammatory symptoms. Patient peripheral immune cells showed elevated type I interferon signatures and inflammatory pathway enrichment, alongside hypomorphic TLR responsiveness mimicking LOF phenotypes. However, reconstitution studies in HEK293T cells and IRAK4-deficient THP-1 cells demonstrated that variants (D320Y, Q29P) triggered constitutive and ligand-enhanced proinflammatory cytokine dysregulation (predominantly IL-6, IFN-





ABSTRACT ID: PP 012

Title	A Real-World Study on the Clinical Efficacy and Safety of Dupilumab in the Treatment of Pediatric Atopic Dermatitis
Authors	Shengyuan Hua ¹ , Qiufang Qian ¹ , Jia Zhang ²
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ABSTRACT

Objective: To evaluate the clinical efficacy and safety of dupilumab in the treatment of pediatric atopic dermatitis (AD).

Methods: A total of 36 patients who met the inclusion criteria were selected and treated with dupilumab for 16 weeks. The following assessment scales were collected: SCORing Atopic Dermatitis (SCORAD), Eczema Area and Severity Index (EASI), Childhood Dermatitis Life Quality Index (CDLQI), Numerical Rating Scale (NRS) for pruritus and sleep, Atopic Dermatitis Control Tool (ADCT), and Patient-Oriented Eczema Measure (POEM). Statistical analysis was performed on the data, and adverse events were recorded.

Results: At week 16 of treatment, 97.06% (33/34), 70.59% (24/34), and 32.35% (11/34) of patients achieved EASI-50, EASI-75, and EASI-90, respectively. The SCORAD score decreased from 62.35±14.30 to 25.59±10.74 ($P<0.05$), and the CDLQI score decreased by 73.12% at week 16. At week 16, the pruritus NRS score decreased from 7.44±1.65 to 2.82±2.02 ($P<0.05$), the ADCT score decreased from 15.35±5.05 to 5.47±3.89 ($P<0.05$), and the POEM score decreased from 19.12±7.28 to 5.56±5.12 ($P<0.05$). Regarding adverse events, 5.88% (2/34) of patients reported facial flushing, and 2.94% (1/34) of patients developed conjunctivitis.

Conclusion: Dupilumab can effectively alleviate pruritus, improve skin lesions, and enhance the quality of life in children with atopic dermatitis, with good safety.





ABSTRACT ID: PP 013

Title

Maternal Exposure to an Allergenic Chinese Herbal Component, Baicalin, Influences Offspring Immune Phenotype and Early Allergy Risk

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ABSTRACT

Introduction: Maternal exposure during pregnancy can shape offspring immune programming and allergy susceptibility. This study used baicalin, a component of commonly used Chinese herbal medicines, to investigate its effects on offspring immunity. Baicalin was selected because it is widely used in China, has potential allergenicity, and serves as a model for maternal herbal exposure affecting offspring allergic risk.

Objective: To evaluate how maternal baicalin exposure, with or without post-exposure challenge, affects offspring immune balance, allergen-specific antibodies, airway inflammation, and early allergic risk.

Methods: BALB/c dams were assigned to control, exposure (BA-BSA 3.6% on gestational days 1, 3, 5), or exposure+challenge (same exposure plus BG-OVA on day 17). Offspring received age-appropriate OVA immunizations. Outcomes included serum allergen-specific antibodies, Th1/Th2/Treg balance, pulmonary transcription factors (GATA-3, T-bet, ROR γ t, FoxP3), and airway hyperresponsiveness (AHR).

Results: Maternal exposure reduced early offspring baicalin-specific antibodies (BG-IgG 9648 $\pm$ 3277, BG-IgG1 5282 $\pm$ 2166), whereas exposure+challenge increased them (BG-IgG 281700 $\pm$ 74120, BG-IgG1 214700 $\pm$ 76150, $P < 0.01$). Exposure induced Th1/Th17 skewing with T-bet/ROR γ t upregulation, while exposure+challenge induced Th2/Treg bias with GATA-3/FoxP3 upregulation ($P < 0.01$). AHR increased in exposure+challenge offspring.

Conclusions: Maternal baicalin exposure modulates offspring immune balance and airway inflammation. Exposure+challenge promotes Th2/Th17 bias and GATA-3/FoxP3 upregulation, suggesting elevated early allergic risk, while simple exposure may reduce risk. These findings provide mechanistic insight into maternal herbal exposure and early-life allergic susceptibility, relevant to pediatric allergy prevention in China.





ABSTRACT ID: PP 014

Title	A Comparative Study on the Impact of Attending a Weight Management Clinic on Parental Knowledge and Awareness on Childhood Obesity
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ABSTRACT

Background: Overweight and obesity in children is associated with an increased risk of noncommunicable diseases. Parental knowledge and awareness is crucial for successful weight management of affected children.

Objective: This study aimed to compare knowledge and awareness of childhood obesity between parents of overweight children attending a weight management clinic and those who had never attended one.

Methodology: A comparative cross-sectional study among 100 parents of obese or overweight children (≥ 6 years) included using convenience sampling method. Fifty were clinic attendees and fifty controls. Data were collected via a pretested interviewer-administered questionnaire and analysed using SPSS 22 with $p < 0.05$ considered significant.

Results: The groups were demographically similar except for younger children in the clinic group (8.68 ± 2.39 vs. 9.72 ± 2.21 years). Clinic-attendee caregivers showed higher obesity-risk knowledge ($t(90.42) = -4.79$, $p < 0.001$) and preventive behaviors (90% vs. 58%; 86% vs. 6%). Knowledge scores were higher for Diet ($U = 555.5$, $p < 0.001$), Physical Activity ($U = 846.0$, $p = 0.005$), and Screen time ($U = 852.5$, $p = 0.004$) among the clinic group. Reliability was acceptable ($\alpha = 0.67-0.93$) for the questionnaire. Maternal education ($F(5) = 2.737$, $p = 0.029$), employment ($F(2) = 8.775$, $p = 0.001$), and education $\times$ income interaction ($F(5) = 3.233$, $p = 0.013$) significantly influenced knowledge.

Conclusion: Clinic-exposed caregivers showed significantly higher knowledge on childhood obesity, risks, and prevention than controls, demonstrating effective structured interventions and highlighting the need to strengthen parent-focused education in primary care.





ABSTRACT ID: PP 015

Title

Nutritional status and associated factors among children with congenital heart disease in a tertiary care centre in Sri Lanka

Authors

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ABSTRACT

Introduction: Malnutrition in children with congenital heart disease (CHD) is a significant global health concern, driven by increased metabolic demands, feeding difficulties, recurrent infections, and chronic hypoxaemia. It is associated with impaired growth, increased morbidity, and higher surgical risk. In Sri Lanka, although approximately 3,255 children are born with CHD annually, data on their nutritional status remain limited.

Objective: To assess the nutritional status and associated factors among children with CHD attending a tertiary paediatric cardiology clinic in Kandy, Sri Lanka.

Method: A descriptive analytical cross-sectional study was conducted among 218 children aged 6–59 months with CHD awaiting surgery or managed conservatively. Data were obtained through questionnaires, echocardiographic records, anthropometry, and biochemical and haematological assessments. Malnutrition was defined using WHO Z-scores (≤ -2 SD). Analysis was performed using SPSS 22.0 with $p < 0.05$ considered significant.

Results: Among 218 children (50.9% male), 64.2% had at least one form of malnutrition. Underweight, stunting, and wasting were present in 48.6%, 46.8%, and 24.3%, respectively. Acyanotic CHD accounted for 93% of cases. A marked energy deficit ($>40\%$) was present in 69.3% and strongly associated with malnutrition ($p < 0.001$). Protein and carbohydrate deficits were associated with wasting, while fat deficit was not. Anaemia was present in 15.6%, and low ferritin was significantly associated with underweight and stunting. Cyanotic status was not associated with malnutrition.

Conclusion: Malnutrition is highly prevalent among children with CHD and is strongly associated with energy and macronutrient deficits, underscoring the need for early nutritional screening and targeted interventions.





ABSTRACT ID: PP 016

Title

Lunch Plate Survey in a Paediatric Ward at a Tertiary Care Center in Sri Lanka

Authors

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ABSTRACT

Introduction: Hospital food provided free of charge in the public sector are often an overlooked component of holistic healthcare. Inadequate quantity or poor nutritional quality of hospital meals can reduce intake, increase susceptibility to infection, prolong hospital stay, and lead to unnecessary wastage of limited resources. In children, proper nutrition during illness is vital for recovery and healthy growth.

Objectives: To determine the nutritional quality and quantity of a lunch plate of food served at a selected paediatric ward in a tertiary care center in Sri Lanka.

Methods: This descriptive cross-sectional study aimed to determine the nutritional quality and quantity of a lunch plate served. Over seven consecutive days, three randomly selected lunch plates served to inward patients were weighed and analysed using NutriSurvey 2007. The mean nutrient content of the plates was calculated for each day. The Recommended Dietary Allowance (RDA) for the 4–6-year age group was used to estimate the percentage of RDA provided.

Results: Across all seven days, rice was the main carbohydrate source, while eggs and sprats prepared in a similar manner constituted the primary protein sources. Nutrient composition varied across the week. Each lunch plate provided >1/3 of daily energy requirements and exceeded 100% of the RDA for protein. The percentage of RDA for analysed micronutrients was generally satisfactory, except for vitamin D.

Conclusion: The main concerns identified were limited food diversity and minimal variation in cooking methods, despite overall adequacy of energy and most micronutrients, with excessive protein content in a single meal.





ABSTRACT ID: PP 017

Title	Effect Of Type and Age of Introduction of Weaning on Nutritional Status of Children Under 5 Years: A Case-Control Study
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ABSTRACT

Objective: To determine the impact of weaning type (complementary feeding) and age on the nutritional status of children under five.

Material and Methods: This is a case-control study was conducted at the Nutritional Rehabilitation Unit (NRU) of the Pediatric Department of Khyber Teaching Hospital over six months from January 2023 to June 2023, and included children aged 6–59 months, excluding those with congenital abnormalities, mental impairment, and chronic disorders. A questionnaire was provided to parents, gathering data on weaning procedures and anthropometric measures (weight and height for age and Z score). Data were examined using SPSS version 25.0, investigating the odds ratio between weaning practices and nutritional status.

Results: The study included 420 children, 140 cases (malnourished children), and 280 controls (healthy children). The participants' average age was 12.4 months for cases and 13.2 months for controls. The majority of participants (49.76%) were male. Weaning before 6 months was shown to be substantially linked with underweight (OR=1.87, 95% CI=1.12-3.12) and stunting (OR=2.45, 95% CI=1.31-4.58).

Conclusion: This study highlights the association between stopping breastfeeding inappropriately and poor nutrition. It also emphasizes the need to promote appropriate weaning practices and improve the nutritional value and diversity of weaning meals to improve child nutrition.





ABSTRACT ID: PP 018

Title	Nutritional status and prevalence of malnutrition among adolescent schoolchildren in Galle district, Sri Lanka: A school based, cross-sectional study
Authors	Ponarasa Arachchige Ruwanthi Ishara Kulathunga ¹ , Pinnaduwa Vijitha De Silva ¹ , Champa Jayalakshmi Wijesinghe ¹
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ABSTRACT

Introduction: Adolescence is a critical period of rapid growth and development, during which nutritional status plays a pivotal role. The COVID-19 pandemic and the recent economic crisis in Sri Lanka may have adversely impacted the nutritional status of adolescents.

Objectives: This study was conducted to assess the nutritional status and prevalence of malnutrition among adolescent schoolchildren in Galle district, Sri Lanka.

Methodology: A cross sectional study was conducted among 876 adolescent schoolchildren aged 16-19 years attending schools in Galle district. Sample was selected using cluster sampling technique. Nutritional status of the adolescents was assessed using Body Mass Index (BMI) for age. Data were analyzed using Statistical Package for Social Sciences software, version 30 using descriptive statistics.

Results: Mean age (SD) of the adolescents was 16.27 (0.58) years. Among the adolescents, 51.7% were females while 48.3% were males. Among the females, 70.9% had normal BMI for age, 13.5% had thinness, 5.1% had severe thinness, 9.9% had overweight and 0.7% had obesity. Among the males, 53.2% had normal BMI for age, 23.4% had thinness, 14.9% had severe thinness, 6.9% had overweight and 1.7% had obesity. Overall, malnutrition was reported among 37.6% of the adolescents.

Conclusions: A considerable proportion of adolescent schoolchildren in Galle district were affected by malnutrition, with thinness being more prevalent among males while overweight was more common among females. These findings highlight the coexistence of undernutrition and overnutrition among adolescents, emphasizing the need for targeted nutritional interventions and regular monitoring to improve adolescent nutritional health in Sri Lanka.





ABSTRACT ID: PP 019

Title

Beyond the Growth Charts: Evaluating the Impact of Psychosocial and Demographic Factors on Growth Faltering in Children in Western Province, Sri Lanka.

Authors

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ABSTRACT

Introduction: Growth faltering (GF) in children is an important public health concern influenced by a complex interaction between psychosocial and demographic factors.

Objectives: This study aimed to evaluate the impact of maternal stress, social support, socioeconomic status, and demographic factors on GF severity among children aged 1-3 years in the Western Province, of Sri Lanka.

Method: A quantitative, cross-sectional predictive correlational study was conducted with 202 mothers identified as primary caregivers of children experiencing GF. Data were collected at child welfare clinics, conducted by MOH, Colombo, using the Parental Stress Scale (PSS), the Multidimensional Scale of Perceived Social Support (MSPSS), and the Child Health Development Record (CHDR), alongside demographic and socioeconomic information. Data was analyzed using SPSS.

Results: Higher maternal stress levels were significantly associated with increased incidence of GF, while social support showed significant negative correlations with GF. Furthermore, family income level and maternal education were negatively correlated, while employment status showed no association with GF. Multinomial logistic regression analyses revealed that higher social support moderated the impact of maternal stress on severe GF cases, and low income amplified the relationship between stress and GF severity. Moreover, maternal stress, social support, and level of education were not significant independent predictors of GF, highlighting the importance of their combined effects.

Conclusions: The findings highlight the critical role of combination of maternal stress, social support, and socioeconomic factors in GF severity. Targeted policies reducing stress, strengthening social support, and improving socioeconomic conditions could mitigate growth faltering and enhance child health outcomes.





ABSTRACT ID: PP 020

Title

Type I and Type II Nutrient Deficiency and Radiological Picture in Pediatric Scurvy

Authors

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ABSTRACT

Objective and study: A child's response to essential nutrient deficiency is classified as Type I: reduced tissue concentration, specific clinical signs like Vitamin C deficiency causing scurvy, and Type II: reduced growth rate with signs of growth failure (undernutrition). As scurvy is rare, diagnosis is often overlooked due to its variable musculoskeletal, mucosal, dental and systemic manifestations. In developing countries with high undernutrition prevalence, awareness of scurvy is critical in malnourished children presenting with alarming clinical signs.

Methods: This retrospective study was performed from September 2024- 2025 at Soetomo General Hospital, Surabaya, Indonesia. Data extraction includes patient age, sex, anthropometric measurement, musculoskeletal, mucosal, anemia, radiographic examination, and ascorbic acid level. Descriptive statistical analysis was performed in this study.

Results: Fifteen scurvy patients were involved. Main complaints were pain in the lower extremities (60%), movement disorders (40%), gum bleeding/gingivitis (26.7%), knee swelling (6.7%), and oral ulcer (6.7%). Radiological findings included Frankel line (60%), Trümmerfeld zone (46.7%), Osteopenia (46.7%), soft tissue swelling (33.3%) Pelkan spur (33.3%), Wimbergers ring (26.7%), knee joint effusion (20%), and growth arrest line (6.7%). Anemia (73.3%) with mean haemoglobin 8.46 ± 1.74 mg/dl and mean ascorbic acid level of 0.14 ± 0.06 mg/dl. Underweight/severely underweight (80%) with nutritional disturbances including underweight and stunted/severely stunted (46.7%). All patients responded to high-dose vitamin C supplementation.

Conclusions: Type I and Type II nutrient deficiencies can occur concurrently. Underweight and anemia are the most prevalent in pediatric scurvy.





ABSTRACT ID: PP 021

Title	Exploring screen time dynamics in early childhood: influences, behavioral outcomes and parental perspectives.
Authors	Abirame Sriskandarajah ¹ , Saraji Wijesekara ¹ , Sivakumar Mirshan ¹ , Lakindu Chirantha Weerabhahu ¹ , Devindi Madurawala ¹ , Hambathsathvani Gnanavelrajah ¹
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ABSTRACT

Background: The increasing penetration of digital media has elevated screen exposure among young children worldwide. Early childhood is a critical period for cognitive, and emotional development, and excessive screen time has been associated with developmental delays. Despite global recommendations limiting screen time for children aged 2–5 years to less than 1 hour per day, many exceed these thresholds.

Objectives: To assess the determinants of screen time and its behavioral effects on children aged 2 to 5 years and to assess the association between screen time duration and behavioral outcomes in children aged 2 to 5.

Methods: A descriptive cross-sectional study was conducted among parents of children aged 2–5 years attending Colombo South Teaching Hospital. Using convenience sampling, 82 participants were recruited. Behavioral outcomes were measured using the Strengths and Difficulties Questionnaire (SDQ).

Results: Majority of children reported an average daily screen time of 1-2 hours on both weekdays (29.3%) and weekends (24.4%) and nearly half of the participants have screen time more than 1 hour in weekdays (50.0%) and in weekends (54.9%). Screen exposure was predominantly for entertainment purposes like cartoons (91.5%). No statistically significant association was observed between demographic factors and children's screen time. However, a statistically significant association was identified between screen time duration on weekdays and weekends and Total difficulty score. (Fishers exact, $p=0.009$ and $p=0.01$)

Conclusion: Children aged 2-5 predominantly use screens for entertainment and often exceed recommended screen time limits. Significant associations with behavioral difficulties highlight the need for regulated, developmentally appropriate screen use in early childhood.





ABSTRACT ID: PP 022

Title

Implementing a Detection and Care Pathway for 36-Month-Old Children in Colombo District: Early Identification of Developmental Vulnerabilities

Authors

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ABSTRACT

Introduction: Globally, approximately 4.3% of children aged 0–4 years live with developmental disabilities. Integrating early detection within routine public health services enables timely referral and intervention, reducing long-term functional impairment. We describe the implementation of a district-level detection and care pathway for 36-month-old children in Colombo District, Sri Lanka.

Objectives: To implement and evaluate a structured developmental detection and referral pathway at 36 months in Colombo District.

Methods: Public Health Midwives (PHMs) were trained to conduct developmental surveillance using the Child Health Development Record (CHDR) based on parental report and observation. The Social Attention and Communication Surveillance – Preschool (SACS-PR) tool was incorporated to identify social-communication concerns. SACS-PR was translated into Sinhala and Tamil, back-translated, and culturally adapted according to WHO guidelines. Psychometric properties and inter-rater reliability were assessed following PHM training by a SACS master trainer. Screening was conducted among children aged 31–42 months between November 2024 and January 2026. Ethical approval was obtained from the Sri Lanka College of Paediatricians Ethics Review Committee.

Results: A total of 1,294 children were screened. PHMs demonstrated good reliability in administering SACS-PR. The tool showed satisfactory psychometric properties for use as a secondary screening instrument for social-communication disorders, including autism. Developmental atypicalities were identified in a significant proportion of children using both CHDR and SACS-PR.

Conclusions: Embedding structured developmental screening at 36 months is feasible within routine public health services. This pathway identified previously unrecognised developmental vulnerabilities and strengthened early referral and intervention within the public health system.





ABSTRACT ID: PP 023

Title

Oral Narrative Organization in Sinhala-Speaking Preschoolers: Informing Early Language Screening in Sri Lanka.

Authors

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ABSTRACT

Introduction: Oral narratives are increasingly used as ecologically valid assessments of early language development, as they reflect children's higher language skills in naturalistic environments. This study examined overall story organization (macrostructure) in narratives produced by typically developing Sinhala-speaking preschool children aged 3;5–4;11 from Colombo District, across two picture-supported storytelling tasks: story retelling and story generation.

Objective: To describe and compare children's use of core macrostructure elements across tasks.

Methods: Narratives were elicited from 64 children using a six-picture retell of a model story and a parallel six-picture story generation task. Stories were scored using an adapted macrostructure rubric comprising character, setting, initiating episode, internal response, plan, action, and consequence.

Results: Across tasks and ages, children achieved higher scores for character and action. Scores were consistently low for setting, and markedly lower for internal response and plan. Overall macrostructure scores were higher in retelling than in generation. Older children outperformed younger peers on all components, although their narratives still showed emerging episode structure. This pattern is consistent with international findings that 3–5 year old children can describe basic event sequences, but have more difficulty providing contextual information, and expressing mental states and goal directed aspects of stories.

Conclusions: The results highlight the need in developmental paediatrics to interpret incomplete and poorly planned narratives in this age group as developmentally constrained rather than pathological. The study outcomes support the inclusion of structured retell and generation tasks in early screening programmes in Sri Lanka and longitudinal monitoring of children's language development.





ABSTRACT ID: PP 024

Title	Evaluation of Early Digital Screen Exposure (DSE), Its Effects on Language Development and Parental Awareness of DSE in a Cohort of Children Attending Tertiary Care Hospitals in Kandy District, Sri Lanka
Authors	Mihashee Mahaulpotha ¹ , Harithma Hettiarachchi ¹ , Kaumadi Sandaruwani ¹ , Tharushi Ranasinghe ¹ , Adithya Jayampath ¹ , Pathum Dissanayake ¹
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ABSTRACT

Background: The first two years of life represent a critical period for neurodevelopment. Despite the World Health Organization(WHO) recommendation of zero screen time for children under two years, digital screen exposure (DSE) among young children continues to rise.

Objectives: This cross-sectional study, using retrospective parental recall, examined screen exposure up to 2 years of age, among children now aged between 2 and 5 years. It analyzed usage patterns (device, duration, and content), reasons for screen use, parental awareness of risks, and the potential association between screen time and speech delay.

Methodology: The study included 317 parents of children attending outpatient departments and well-baby clinics at tertiary care hospitals in Kandy district. Data were collected using selfadministered questionnaires. Language milestones were assessed using the Child Health Development Record. Children with global developmental disorders, sensory impairments or syndromes were excluded.

Results: Only 28.8% of children had no screen exposure during infancy. Among those exposed, smartphones (74.5%) and cartoons (84.5%) dominated. Screen use was primarily motivated by perceived educational benefits (43.3%) and as a feeding distraction (42.2%). While many parents were aware of behavioral risks such as sleep disruption (41.3%), misconceptions were evident, with 25.1% and 41.3% attributing DSE to Down syndrome and Autism, respectively. No statistically significant association was found between screen time and speech delay ($p = 0.247$).

Conclusion: The high prevalence of early DSE and significant parental misconceptions highlight the urgent need for targeted parental education. Larger-scale longitudinal studies are needed to investigate long-term impacts on speech.





ABSTRACT ID: PP 025

Title

Prevalence of disciplinary practices used for children with special needs by their parents and its associated factors : A Cross-Sectional Study in Sri Lanka

Authors

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ABSTRACT

Introduction: Parental disciplinary practices strongly influence child development, with violent methods linked to harmful outcomes. Children with special needs are particularly vulnerable due to child-related, parental, and family-level risks. Early recognition and timely interventions are essential to reduce long-term effects.

Objective: This study aims to describe the prevalence of violent and non-violent disciplinary practices among parents of children with special needs and to identify factors associated with violent discipline. It also examines disciplinary patterns among children diagnosed with Autism Spectrum Disorder (ASD) and Attention Deficit Hyperactivity Disorder (ADHD).

Methods: A descriptive cross-sectional study was carried out at a multidisciplinary clinic in the Gampaha District, Sri Lanka, from 15 March to 15 May 2024. Parents of children aged 2–18 years with special needs were recruited. Data were collected via a self-administered questionnaire and analysed using SPSS version 22.

Results: Of 455 eligible parents, 445 responded (97.8%). Non-violent discipline was reported by 82.5%. Psychological aggression, physical abuse, and corporal punishment were reported at 69.9%, 12.8%, and 65.8%. Violent discipline was significantly associated with child age, gender, and physical, cognitive, or sensory impairments, as well as parental age, low income, intimate partner violence, and substance abuse ($p < 0.05$). No association was found with speech difficulties or parental employment. Among ASD and ADHD groups, psychological aggression, physical abuse, and corporal punishment were also frequently reported.

Conclusion: Violent disciplinary practices were common among parents of children with special needs, highlighting the need for strengthened family support and promotion of safer disciplinary approaches.





ABSTRACT ID: PP 026

Title	Morpho-syntactic development in selected Tamil-speaking, trilingual, typically developing preschoolers in the Colombo district- preliminary findings
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ABSTRACT

Introduction: This qualitative study investigated morpho-syntactic development in typically developing Tamil-speaking trilingual preschool children (Tamil, English, and Sinhala) aged 4–5 years in the Colombo district.

Objectives: To identify key morpho-syntactic structures in each language, examine development relative to typical milestones, analyse cross-linguistic similarities and differences, and describe factors influencing language development.

Methodology: Language samples were collected from ten children using general conversation and picture description tasks in all three languages. Morpho-syntactic development and cross-linguistic pattern was analysed using Mean Length of Utterance in words (MLU-w) and detailed linguistic analysis, with reference to available language-specific norms. An interviewer-administered questionnaire was used to obtain demographic information and parental perspectives on factors affecting language development. Audio-recorded parental interviews were transcribed, translated, and analysed thematically.

Results: The children achieved higher MLU-w values in the languages with greater exposure, while production of complex morpho-syntactic structures was limited. Frequent codeswitching, code-mixing, and morphological nativization of borrowed words were observed, reflecting systematic strategies in multilingual development. Factors influencing second and third language development included degree of language exposure, individual child characteristics, and home and preschool environments.

Conclusion: The findings indicate that while MLU development was generally appropriate in children's dominant languages, in-depth morpho-syntactic analysis was necessary to determine mastery of age-appropriate structures. This highlights the limitations of relying solely on MLU measures, which may mask weaknesses in complex morpho-syntactic development, and underscores the need for comprehensive, language-sensitive assessment practices to ensure valid evaluation of multilingual children.





ABSTRACT ID: PP 027

Title	Towards Strengths-based assessment and advocacy for children with disability: The F Words for Child Development
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ABSTRACT

Background: Children with disability experience various challenges but also display strengths and resilience. Traditionally, the focus of developmental assessments and intervention has been on medicalising disability. The “F-words for Child Development” is a framework that is gaining international prominence.

Methods: We implemented “F-words” framework (Function, Family, Fitness, Fun and Friends) into routine clinical practice within Child Development clinics in South Western Sydney in 2024. The framework was incorporated into standardised clinic proformas, with regular education/ awareness building activities conducted within the team. The “voice of the child” model was already in place in practice. We audited clinical reports pre-intervention and post-intervention to assess how well the ‘F-words’ framework was incorporated. We also assessed clinician and family perspectives and experiences with this tool. Thematic analysis was performed on the open text responses.

Results: Audit of 88 reports pre-intervention and 112 post-intervention showed: 95% (n=106) of reports clearly documented the child’s strengths compared with 74% (n=65) pre-intervention; 85% (n=95) documented at least 4 of the F-words domains, compared with 8% (n=7) preintervention. Multidisciplinary clinicians (n=21) and families (n=18) response to the electronic surveys showed the ‘F-words’ framework was very well received; most clinicians and families found it effective and helpful in enhancing clinical assessment, presenting a balanced reflection of the child, broadening understanding of the child’s strengths.

Conclusion: The ‘F-words’ framework and the ‘voice of the child’ can be easily incorporated into clinical practice. Child health professionals dealing with children with a disability need to respond in a holistic, child-rights affirming manner.





ABSTRACT ID: PP 028

Title

The Applicability of the Greulich and Pyle Atlas in the Sri Lankan Population: A Pilot Study

Authors

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ABSTRACT

Introduction: The Greulich-Pyle (GP) atlas is widely used to assess skeletal age in children. It was developed using data from American-Caucasian children. The applicability of the GP method has been questioned in different populations. While it is widely used in local clinical context, the applicability for the Sri Lankan population has not been explored.

Objectives: This study was carried out as a pilot to assess the applicability of the GP atlas in Sri Lankan children.

Methods: Radiographs were obtained from patients between birth and 19 years from Lady Ridgway Hospital who underwent left hand AP view for non-metabolic causes. X-rays with fractures, diagnosed illnesses were excluded. Chronological age was calculated by the difference between the date of birth and the date of imaging. Skeletal age was estimated by using the GP atlas by two readers.

Results: Of the 50 X-rays (30 female, 20 male), the mean difference (Estimated age – chronological age) for males and females is 0.67 and -0.37 months, respectively. It suggests the atlas has underestimated the age in females and overestimated it in males. There was a strong correlation between chronological and estimated age (females: $R^2 = 0.96$; males: $R^2 = 0.83$). The interclass correlation was 0.97, indicating excellent inter-rater reliability.

Conclusions: This pilot study provides preliminary evidence on the applicability of the GP atlas in Sri Lankan children. Although estimates differ, the study demonstrated a strong correlation between skeletal and chronological age. Larger, age-stratified studies across diverse Sri Lankan populations are warranted to confirm these findings.





ABSTRACT ID: PP 029

Title

Impact of complementary feeding initiation age on growth recovery among Sri Lankan children with growth faltering at 4 months

Authors

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ABSTRACT

Introduction: Growth faltering is defined as ≥ 0.35 SD deviation of Weight for age Z score (WAZ) from that of birth.

Objectives: To describe the impact of complementary feeding initiation age on growth recovery of children with growth faltering at 4 months

Methods: A community based retrospective cohort study was conducted (Oct-Nov 2023) among term born children aged 12-24 months in 45 MOH areas of in 8 districts. An enumerator administered questionnaire was used and data was collected via direct interview of the caregiver and via CHDR.

Results: Out of 1875 participants (50.8% male), mean birth weight was 2.92kg and mean birth WAZ was -0.86. By 4 months of age, 30.6%(n=574) children showed weight faltering. Within this faltered group, 87.1%(n=500) was exclusively breast fed by 4 months and 59.4%(n=341) remained exclusively breast fed even at 6 months of age. Among the faltered group, 13.2%(n=76) had started complementary feeding at 4-5 months of age and 77.3%(n=444) had started complementary feeding at 6 months of age. A complete case analysis revealed that the children who started complementary feeding at 4-5 months demonstrated numerically greater mean improvement of WAZ by 6 months(+0.32SD vs +0.24SD), 9 months(+0.39SD vs +0.37SD) and 12 months(+0.42SD vs +0.32SD) compared to children who started complementary feeding by 6 months. However, the magnitude of recovery did not differ significantly between the two groups at any time point.

Conclusion: Early initiation of complementary feeding in those who have growth faltering, improves outcome than late introduction, although not statistically significant.





ABSTRACT ID: PP 030

Title	What Challenges of Continuation of Exclusive Breast Feeding up to 6 Months face by mothers in resource poor setting in a country with High Exclusive Breast-feeding rates reported. Experience from Eastern Province of Sri Lanka
Authors	Jagath Ranasinghe ¹ , Sachith Abeysundara ² , D. S. Madushika ² , S B Agampodi ³
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ABSTRACT

Background: According to the World Breastfeeding Trends Initiative, Sri Lanka (SL) ranked number one and only country to achieve green status. Exclusive breastfeeding (EBF) for six months is current practice with a rate of 75.5% among 0–5 months in SL.

Objectives and Methods: A descriptive cross-sectional study conducted in Sammanthurai Medical officer of Health area to Identify factors contributing to early cessation of EBF. Consecutive mother-infant days with the infant ageing ≤ 6 months were included from 25 public health midwife areas. Missing values imputed using 'missForest' statistical algorithm.

Results: The mean age of the sample was 28.4(SD ± 5.6). Of the 257 mothers recruited, 15(5.8%) were teenagers and 42(16.3%) > 35 years. 251(97.6%) had children 1–5 and 86(33.5%) were first born. 140 (54.5%) had tertiary education, 28 (10.9%). 31(12.1%) were employed. EBF rates 0–6 months was 79.8% (n = 205). 239(93.0%) started breastfeeding within an hour. EBF was not associated with maternal age, birth order or income. 18 employed mothers and 186 unemployed mothers continued EBF. Regarding the factors associated with EBF, having a tertiary education ($p < 0.001$), being employed ($p = 0.004$) and having less than 3 children ($p = 0.03$) were associated with nonexclusive breastfeeding. Tertiary education was the significant predictor of non-exclusive breastfeeding in this population with an odds ratio of 4.50 (95% CI 1.331–15.215).

Conclusion: Employment identified as a risk factor for early cessation of EBF. Revision of workplace policies, establishment of lactation areas, entrusting supportive policies are mandatory amid six-months EBF policy in SL.





ABSTRACT ID: PP 031

Title	Utilisation of the Child Health and Development Record (CHDR) Book Among 200 Paediatric Admissions: A Clinical Audit from District General Hospital Nuwara Eliya – Sri Lanka
Authors	Sampath samarasekara ¹ , Ravindu Yahampath ² , KMT Kumara ²
Affiliations	¹ DGH Nuwara Eliya, Sri Lanka ² Ministry of Health, Sri Lanka

ABSTRACT

Background: The Child Health and Development Record (CHDR) book is a parent-held home-based record issued by the Ministry of Health Sri Lanka to ensure continuity of childcare including growth monitoring, immunisation tracking, nutrition guidance, and developmental surveillance. Effective utilisation is essential for early detection of growth and developmental abnormalities ^{1, 2}.

Objectives: To evaluate availability, caregiver utilisation, and knowledge regarding the CHDR among paediatric admissions. **Methods:** A descriptive cross-sectional audit was conducted among 200 caregivers of children admitted to Ward 21, District General Hospital Nuwara Eliya from 1st Of January to 31st of January 2026 . Data were collected via interviewer-administered questionnaires and CHDR review checklists.

Results: CHDR availability, clinic carriage, and health worker utilisation were 100% (n=200). Developmental milestone awareness was 76% (n=152), while 72% (n=144) had reviewed the milestones section. Only 30% (n=60) could correctly mention a milestone. Feeding and weaning awareness was 96% (n=192), with 78% (n=156) having read . CHDR availability, clinic carriage, and health-worker utilisation were 100%. Caregiver awareness of developmental milestones was 76%, with 72% having reviewed the section; however, only 30% could correctly mention a milestone. Feeding and weaning awareness was high at 96%, and 78% had read the feeding guidance.

Conclusion: Despite optimal institutional utilisation, caregiver developmental literacy remains suboptimal. Strengthened parental education and structured counselling interventions are recommended to improve early childhood surveillance outcome .





ABSTRACT ID: PP 032

Title	Assessment of Correlation Between Ultrasound Scan Findings And Haematological Parameters In Relation To Onset of Critical Phase in Dengue Haemorrhagic Fever in Children Admitted to Colombo North Teaching Hospital, Ragama, Sri Lanka
Authors	Lakmali Kandegedara ¹ , Rasika Gunapala ¹
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ABSTRACT

Introduction: Dengue haemorrhagic fever (DHF) causes significant paediatric morbidity and mortality. The critical phase is characterized by plasma leakage which may be difficult to detect early as clinical and haematological changes can be subtle or delayed. Ultrasonography is widely used to detect plasma leakage early and to estimate time of entry into critical phase.

Objectives: The primary objective was to assess the correlation between ultrasonographic findings and haematological parameters in determining the onset of critical phase. Additionally, demographic characteristics and frequency of ultrasonographic findings were described.

Methods: A retrospective, observational study was conducted among children with DHF admitted to ward 02, Colombo North Teaching Hospital, Ragama, Sri Lanka, from 01/03/2017 to 31/08/2017. Data was extracted from medical records and analyzed using R statistical software.

Results: 57 children were included. 56.1% were male. The most frequent ultrasonographic finding was gallbladder wall oedema (93.0%), followed by ascites (78.9%). Sonographic evidence of leaking was significantly higher among patients with markedly reduced platelet counts. No statistically significant difference was observed in detection of plasma leakage when ultrasonography was compared with clinical monitoring charts ($P=0.354$), or haemoconcentration ($p=0.424$). Ultrasound detected the critical phase earlier than haemoconcentration in 63.3%.

Conclusions: Ultrasonographic evidence of plasma leakage is higher in patients with decreased platelet count consistent with previously published data. Ultrasonographic detection of onset of critical phase is comparable to the detection by haemoconcentration. Ultrasonography facilitates earlier recognition of plasma leakage enabling timely intervention and improved outcomes.





ABSTRACT ID: PP 033

Title	Evaluating The Antibiotic Sensitivity And Resistance Patterns of Salmonella Typhi in Pediatric Enteric Fever Patients: A Cross Sectional Study at a Tertiary Care Hospital
Authors	Arshia Munir ¹ , Bushra Noor ²
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ABSTRACT

Enteric fever, caused by Salmonella Typhi and Paratyphi, remains a formidable global health concern, particularly affecting developing nations. With an exceeding annual global incidence of significant mortality rates, the emergence of multidrug-resistant strains poses escalating challenges to effective treatment. This cross-sectional study was carried out at Khyber Teaching Hospital from October 2023 to July 2024 by using a non-probability purposive sampling method. The study focused on children aged 1 to 14 years who were admitted to the pediatric department and had blood cultures positive exclusively for Salmonella Typhi. Data were gathered from the patients' culture and sensitivity reports and analyzed using SPSS Software Version 21. Out of 359 cases, 206 (57.4%) were male and 153 (42.6%) were female. Antibigram analysis revealed significant resistance to primary antibiotics,

including co-trimoxazole (48%), chloramphenicol (96%), ceftriaxone (96.3%), and ciprofloxacin (95.9%). High resistance was also observed for ampicillin (98.9%), moxifloxacin (84.1%), and several others. In contrast, antibiotics like meropenem, doripenem, imipenem, ertapenem, tigecycline, and colistin showed 100% sensitivity. The combination drugs such as Piperacillin-tazobactam (99.2%) and Cefoperazone-sulbactam (98.5%) also showed higher sensitivities. The sensitivity of Azithromycin and Doxycycline was 99.4% and 85.7% respectively. The study reveals a concerning trend of significant antibiotic resistance among Salmonella Typhi isolates, particularly against firstline antibiotics. Despite this, high sensitivity was noted for azithromycin, meropenem, doripenem, imipenem, and tigecycline, indicating their effectiveness in treating enteric fever. The healthcare professionals should consider these regional antibiotic resistance trends for better patient outcomes.





ABSTRACT ID: PP 034

Title	Clinical Profile of Hospitalized Pertussis Cases in a Tertiary Government Hospital in Bataan Province, the Philippines: A Retrospective Study
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ABSTRACT

Introduction: Pertussis is a highly contagious respiratory illness that continues to cause significant morbidity and mortality in infants despite vaccination efforts. The 2024 resurgence in the Philippines, attributed to waning immunity and post pandemic disruptions, prompted intensified immunization campaigns. This study characterizes pertussis admissions at a tertiary hospital in Bataan to guide clinical and public health strategies.

Objective: to describe the clinical profile, laboratory findings, and outcomes of pediatric cases admitted from January to August 2024, and identify high risk factors with severe diseases.

Methods: Retrospective cohort study using medical records of 100 pediatric patients admitted with pertussis. Cases classified per DOH surveillance criteria. Data on demographics, clinical presentation, vaccination status, laboratory values, and outcomes were collected, anonymized and analyzed using descriptive and inferential statistics ($p < 0.001$). Ethics approval was obtained.

Results: Most patients were under 3 months, with 44% laboratory confirmed cases. Paroxysmal cough (5%), pneumonia (93%), and dyspnea (51%) were common. Mechanical ventilation was required in 20 patients; Mortality in this subgroup was 40%. Hyperleukocytosis was seen in 53% strongly associated with mortality. Half of the fatalities also had elevated CRP. Only 8% of vaccine eligible patients completed the DPT series; none had booster doses. The overall case fatality rate was 12%, highest among unvaccinated neonates.

Conclusion: Severe Pertussis outcomes were linked to young age, incomplete vaccination, and inflammatory markers. Strengthened immunization, early recognition, and improved PICU access are critical in reducing mortality."





ABSTRACT ID: PP 035

Title	Clinical Presentation and Antimicrobial Resistance of Staphylococcus aureus Infections in a Level II Special Care Baby Unit, District General Hospital, Mullaitivu, Sri Lanka
Authors	Visvalingam Arunath ¹ , Balasubramaniyam Thanshayan ¹ , Sachith Mettananda ²
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ABSTRACT

Background: Staphylococcus aureus is an important cause of neonatal infections, particularly in special care baby units (SCBU), where antimicrobial resistance poses growing challenges. This study aimed to describe the clinical presentations, burden, and antimicrobial resistance of Staphylococcus aureus infections in a Level II SCBU.

Methods: A retrospective review was conducted of all microbiological samples yielding Staphylococcus aureus from neonates admitted to the SCBU between 1 November 2024 and 31 December 2025.

Results: A total of 500 newborns were admitted to the SCBU during the study period. Fifteen (3%) microbiological samples were positive for Staphylococcus aureus, of which nine (67%) were methicillin-resistant Staphylococcus aureus (MRSA). Positive cultures included blood (n=4), eye swabs (n=9), and umbilical swabs (n=2). The most common clinical presentation was conjunctivitis (n=9), followed by sepsis (n=4) and umbilical discharge. 33% of the affected neonates were preterm, and 53% had low birth weight. 67% of the neonates had prior admission and treatment at SCBU before acquiring Staphylococcus aureus infection. All four cases of sepsis were late-onset neonatal sepsis, and three of these were caused by MRSA. Overall, the incidence of Staphylococcus aureus septicemia was 80/10,000 hospitalized infants. Among the MRSA septicemia cases, 2/3 isolates demonstrated resistance to clindamycin, cloxacillin, cotrimoxazole, and fusidic acid, with sensitivity only to vancomycin. No mortality was reported.

Conclusion: Staphylococcus aureus, particularly MRSA, contributes significantly to late-onset infections in the SCBU, with conjunctivitis being the most common. High levels of antimicrobial resistance highlight the need for ongoing surveillance, strict infection control measures, and judicious antibiotic use.





ABSTRACT ID: PP 036

Title	A Rapid Visualization Method for Genotyping G and P Genes of Group A Rotavirus Based on PCR-Invader-AuNP Technology
Authors	Yan Lu ¹ , Zhifeng Liu ¹
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ABSTRACT

Introduction: Group A rotavirus (RVA) is a leading cause of severe gastroenteritis in children under five years worldwide. Its genetic diversity and continuous evolution pose challenges for timely genotyping. Traditional methods such as nested PCR and Sanger sequencing are timeconsuming, expensive, and operationally complex, limiting their clinical applicability in resource-limited settings.

Objectives: To establish a simple, rapid, and cost-effective genotyping method for RVA G and P genes, and to evaluate its clinical application value.

Methods: We designed universal primers and genotype-specific Invader probes targeting common RVA genotypes (G1, G2, G3, G4, G8, G9, G12, and P[4], P[6], P[8], P[9]) based on analysis of 1,729 global RVA sequences from the past two decades. The assay integrates PCR amplification with Invader reaction and oligonucleotide probe-modified gold nanoparticles (AuNPs) for visual detection. Analytical performance was evaluated using standard plasmids; clinical validation was performed on stool samples and compared with nested PCR and Sanger sequencing.

Results: The PCR-Invader-AuNP assay demonstrated excellent specificity with no crossreactivity between genotypes. The entire procedure—from amplification to visual readout—was completed within 2 hours using a standard PCR instrument, with results interpretable by naked eye. The per-test cost was under 10 RMB. In clinical validation, the assay achieved excellent sensitivity and specificity, and concordant with Sanger sequencing.

Conclusions: This PCR-Invader-AuNP-based method provides a simple, rapid, and low-cost platform for RVA G/P genotyping. Its visual readout and minimal equipment requirements make it particularly suitable for primary healthcare settings, with strong potential to support RVA epidemiological surveillance and vaccine development.





ABSTRACT ID: PP 037

Title	Renal involvement in childhood Leptospirosis
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ABSTRACT

Introduction: Renal involvement occurs in 40-60% of adults with leptospirosis and accounts for approximately 22% of deaths. It is a significant risk factor for pulmonary haemorrhages. The data for children are limited due to sparsity of cases. Objective: To assess the patterns of renal involvement and its clinical associations in children with leptospirosis.

Methodology: The retrospective observational study included children with serologically confirmed leptospirosis and renal involvement admitted to Paediatric Nephrology unit at National Hospital, Galle, between 2021 and 2026.

Results: Fifteen patients presented at 4.2 ± 1.2 days of illness with renal involvement. The mean age was 11.4 ± 1.7 years with male predominance (80%). At presentation, 40% were in AKIN 3 (<35 ml/min/ 1.73 m²), with mean eGFR of 43.4 ± 27.6 . The nadir eGFR 25.7 ± 16.6 occurred at 1.8 ± 1 days after admission, with 73% reaching nadir within first 48h. Overall, 11(73%) progressed to stage 3 and 40% had eGFR <15 . Onset bicarbonate was the only significant predictor of eGFR ($\chi^2 = .75, p < 0.05$).

Most needed initial fluid resuscitation and frusemide to maintain urine output. One underwent CRRT to assist ECMO. The timing of nadir eGFR strongly correlated with nadir platelet count ($R = 0.8, p < 0.01$) and heralded the onset of polyuric phase. Renal function normalized within 8.5 ± 3.7 days.

One (6.7%) died on day 29 of septicaemia. Plasmapheresis was carried out in two (13%) with pulmonary haemorrhages. Other organ involvement except haematology was mild.

Conclusion: Despite severe renal involvement, appropriate fluid resuscitation with judicious use of frusemide to maintain urine output >1 ml/kg/h until a veer in creatinine or platelets (first 48- 36 hours) may result in favorable renal recovery in children.





ABSTRACT ID: PP 038

Title

Association Between Anaemia and Length of Hospital Stay in Children with Influenza A and B Receiving Oseltamivir: A Single-Centre Cross-Sectional Study

Authors

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ABSTRACT

Introduction: Anaemia is common in children and may influence clinical outcomes during acute infections. Influenza can result in variable disease severity; however, the impact of anaemia and its severity on the duration of hospital stay among children with influenza who are treated with oseltamivir is not well established.

Objectives: This study aimed to assess the association between anaemia and hospital stay in children with Influenza A and B treated with oseltamivir, and to determine whether this association differs according to age, gender and influenza type. Method: A cross-sectional study was conducted among children with laboratory-confirmed influenza. Demographic data, haemoglobin levels at admission, influenza type, and duration of hospital stay were recorded and analysed. Anaemia was defined using standard age-specific haemoglobin cut-offs.

Results: The study included 82 children (48 males, 34 females) with a mean age of 48.7 months (range 3 months–13 years) and a mean hospital stay of 2.40 days (SD 1.06); 22% were anaemic. Influenza A was diagnosed in 71 children and Influenza B in 11. Overall, hospital stay did not differ significantly between anaemic and non-anaemic children, between influenza types, or between anaemic males and females (all $p > 0.05$). Anaemia severity was not correlated with hospital stay in the full cohort. However, in children aged ≤ 24 months, higher anaemia severity was moderately associated with longer hospitalisation ($\rho = 0.44$, $p = 0.035$).

Conclusion: According to this study, anaemia was not associated with prolonged hospital stay in children with Influenza treated with oseltamivir, and this relationship did not vary by gender or influenza type. However, greater anaemia severity was associated with longer hospital stay among children aged ≤ 24 months, suggesting that the clinical impact in younger children.





ABSTRACT ID: PP 039

Title

SCRUB TYPHUS IN INFANTS

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ABSTRACT

Background: Scrub typhus is a major health concern and a potentially fatal, neglected tropical infectious disease caused by the bacteria *Orientia tsutsugamushi*, which lacks sufficient study and data in infancy. This retrospective study investigates the clinical presentation, laboratory findings, and outcomes of infants (<1 year) with scrub typhus admitted to a tertiary care hospital in India over a decade.

Methodology: The medical records of infants with laboratory-confirmed scrub typhus infection (IgM against Scrub Typhus antigen), who were admitted to a tertiary care centre in South India during the period from 2014 to 2023, were reviewed.

Results: A total of 49 infants were found to be affected with Scrub Typhus infection during this period. An increase in cases was found during the winter months, probably indicating a seasonal trend. Fever was the most common symptom, followed by respiratory symptoms (cough, coryza). An eschar was present in half of the study population (n=23), mostly over the head and neck or inguinal region. Twenty-four infants had a severe form of disease requiring intensive care. Univariate analysis of the parameters showed that an elevated total count, low platelet count and elevated SGOT were associated with a more severe form of the disease in infants, while the presence of an eschar was a significant predictor of a less severe form of the disease. This study aims to contribute to a better understanding of scrub typhus in this vulnerable population and inform appropriate diagnostic and treatment strategies.





ABSTRACT ID: PP 040

Title

Knowledge, Attitudes, and Error reporting practices related to patient safety among paediatricians in Sri Lanka: A cross-sectional study

Authors

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ABSTRACT

Introduction: Patient safety is central to high-quality paediatric care, yet evidence from low and middle-income settings suggests that clinician knowledge may not translate into safer clinical practice.

Objective: To assess knowledge, attitudes, practices, and perceived barriers regarding patient safety and error reporting among paediatricians in Sri Lanka.

Methods: A cross-sectional online survey was administered to practising paediatricians across diverse healthcare settings in Sri Lanka. A validated questionnaire assessed demographics, knowledge, attitudes, practices, contributing factors, case-based reporting behaviour, and open-ended suggestions. Descriptive and inferential analyses were performed using R statistical software. Associations between demographic variables and knowledge scores were analysed using non-parametric tests. Spearman correlation assessed relationships among KAP domains.

Results: Total of 150 paediatricians responded; 79.2% had over 10 years of experience. Knowledge levels were high, with 11/13 items achieving >80% accuracy. However, 87.2% had not received patient safety training within the past year. Good safety attitudes were observed in 49.7%, while 37.4% were neutral. Although 72.5% reported witnessing an error or near-miss in the preceding year, 41.1% indicated that Morbidity and Mortality reviews were never conducted. High workload (25.1%) and system/equipment issues (18.5%) were the leading perceived contributors to errors. Reporting intent increased with perceived severity of harm. No significant correlations were observed between knowledge, attitude, and practice domains, demonstrating a theory-practice gap.

Conclusions: Despite solid conceptual knowledge, paediatricians face structural and cultural barriers that limit effective error reporting and institutional learning. Strengthening formal training, non-punitive reporting systems, and workload management may enhance patient safety in paediatric services.





ABSTRACT ID: PP 041

Title

Exposure to Heavy Metals and Neurobehavioral Changes among Children in Asia: A Literature Review

Authors

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ABSTRACT

Introduction: Heavy metals such as lead, cadmium, arsenic, and mercury are present in the environment and industrial products, constituting a major global health concern, particularly for children due to critical periods of neurodevelopment. Global Burden of Disease (GBD) 2019 reported that South Asia and East Asia account for one of the highest heavy metal exposure deaths and disability adjusted life years. Neurobehavioral outcomes are the most frequently reported consequences.

Objective: To discuss the neurobehavioral changes among children in Asia exposed to heavy metals, specifically lead, cadmium, arsenic, and mercury.

Methods: Descriptive analysis was used in this literature review to identify the neurobehavioral alterations as the impact of lead, cadmium, arsenic, and mercury exposure in Asian children. Studies were selected from online databases. The inclusion criteria were original, open-access literature published in English between 2000-2025, with participants aged ≤ 18 years old, and conducted in Asia.

Results: The fifteen included studies found heavy metal levels in blood, urine, and hair were associated with neurobehavioral changes, such as Attention-Deficit Hyperactivity Disorder (ADHD) and autism, as the most frequently reported outcomes. Lead is the most frequently studied toxic element in heavy metal studies in Asia.

Conclusions: Heavy metal exposures have adverse effects and contribute to neurobehavioral alterations in children. Since industrialisation activities are steadily expanding in Asia, which increases the probability of heavy metal exposures, particularly to children as the vulnerable population, further research is needed to protect children.





ABSTRACT ID: PP 042

Title

Early Onset Group B Streptococcal Infection in Newborns - Incidence, Clinical Features and Disease Patterns in a Tertiary Care Hospital in Sri Lanka

Authors

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ABSTRACT

Background: Group B Streptococcus (GBS) is a gram-positive, organism that colonizes the gastrointestinal and genitourinary tracts of up to 30% of pregnant women. Although most carriers are asymptomatic, maternal colonization may lead to urinary tract infection, chorioamnionitis and neonatal infection. Early-onset GBS disease remains a major cause of neonatal morbidity worldwide.

Objective: To determine the incidence, clinical presentation and disease patterns of earlyonset neonatal GBS disease.

Methodology: A cross-sectional analytical study was conducted in the Neonatology units of Sri Jayewardenepura Hospital. All inborn neonates within the first seven days of life with either GBSpositive blood cultures or positive GBS surface swabs and C-reactive protein (CRP) >10 mg/dL were included.

Results: The mean age at symptom onset was 2.0 ± 1.1 days. Most affected neonates were term (72.1%) and had normal birth weight (73.0%). Non-specific infection with positive GBS surface swab was the most common presentation, with an incidence of 42.5 per 1,000 live births. The incidences of GBS pneumonia, septicemia, and meningitis were 11.3, 9.9, and 3.8 per 1,000 live births respectively. Early preterm neonates had significantly higher rates of pneumonia (73.3%) and meningitis (26.6%) and more severe clinical manifestations including respiratory distress, cardiovascular instability, metabolic abnormalities and hypothermia. They required greater respiratory and cardiovascular support with increased antibiotics usage. No mortality was reported.

Conclusion: Early-onset GBS infection represents a significant neonatal health burden with incidence exceeding global estimates. Maternal screening, intrapartum antibiotic prophylaxis and enhanced neonatal surveillance are essential to reduce morbidity and improve outcomes in Sri Lanka.





ABSTRACT ID: PP 043

Title	Gestation specific neonatal mortality rates among extreme preterm births in 2024/2025 at a Level III Neonatal unit in Colombo, Sri Lanka
Authors	Rajapaksha Arachchige Sanduni Wijesinghe ¹ , Umani Senevirathne ² , Upunthi Karunanayaka ¹ , Supun Padmasiri ¹ , Nishani Lucas ²
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ABSTRACT

Introduction: Knowledge of gestational specific survival is of paramount importance to ensure the best use of limited resources. However, gestation specific mortality rates are not available for Sri Lanka.

Objectives: To determine the gestation specific neonatal mortality rates for extreme premature babies in a Level III neonatal unit in Colombo, Sri Lanka

Methods: A retrospective study was conducted at, De Soysa Hospital for Women, Colombo on the neonatal deaths that occurred from 01.01.2024 to 31.12.2025. Permission was obtained from the head of the institution. Babies whose gestations were unknown and those transferred out due to bed unavailability were excluded. Data on births and deaths were recorded from birth registers and cross checked with the perinatal death review statistics and death registers from the neonatal unit. Descriptive analysis was conducted using Microsoft Excel for Mac 2025 v16.103.2.

Results: There were 76 extreme preterm live births with 762g mean birth weight(MBW). Nineteen babies(25%) were below the limit of viability(BW<500g). A 100% mortality was seen in babies born at 20-22 weeks gestation(n=14, BW=285-550g), only 2 had BW >500g. All 20-21week babies had BW<500g. Mortality rates were 93% and 83% at 23 weeks(n=15, MBW=515g) and 24 weeks(n=6,MBW=583g), respectively. Mortality rate reduced to 60% at 25-26 weeks (n=22, MBW=730g). Lowest mortality of 17% was seen at 27 weeks gestation(n=18, MBW= 930g).

Conclusion: All born at 20-21 weeks were below the limit of viability. Mortality steadily decreased from 93% to 17% from 23 to 27 weeks, with each advancing week of gestation.





ABSTRACT ID: PP 044

Title	"Bundles of Hope": Impact of a Quality Improvement Care Bundle on Mortality and Morbidity in a Tertiary Neonatal Intensive Care Unit at Teaching Hospital Badulla, Sri Lanka.
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ABSTRACT

Introduction: Preterm infants remain at substantial risk of mortality and major morbidities, particularly in resource-limited settings. In September 2023, a comprehensive 10-component Quality Improvement (QI) bundle was implemented in a peripheral tertiary neonatal intensive care unit (NICU) to improve outcomes among infants <34 weeks' gestation.

Objectives: To evaluate the impact of this structured QI care bundle on mortality and major prematurity-related morbidities among preterm infants.

Methods: A retrospective cohort study was conducted from January 2022 to June 2025. Of 1,073 admissions, 25 were excluded, and 1,048 infants <34 weeks were analysed over 42 months: Pre- QI (n=486), transition phase (n=88), and Post-QI (n=474). The bundle included early nutrition, thermoregulation, infection prevention, structured resuscitation training, family-centred care, antenatal corticosteroid and magnesium sulphate coverage, delayed cord clamping, oxygen stewardship, safe neonatal transport, and medication safety practices. Outcomes were compared between Pre- and Post-QI periods using chi-square testing. Ethical clearance was obtained from the Sri Lanka College of Paediatricians (SLCP/ERC/2025/36).

Results: In-hospital mortality among infants <34 weeks declined significantly from 13.0% (63/486) pre-QI to 7.6% (36/474) post-QI (p=0.006). Significant reductions were observed in bronchopulmonary dysplasia (19.9% vs 12.0%, p=0.001), intraventricular haemorrhage ≥Grade-II (9.0% vs 4.0%, p=0.002), retinopathy of prematurity requiring treatment (13.0% vs 3.0%, p<0.0001), necrotizing enterocolitis ≥Stage-II (6.0% vs 3.0%, p=0.024), and late-onset sepsis (17.9% vs 8.0%, p<0.0001). Mortality reduction was consistent across gestational strata.

Conclusions: Implementation of a coordinated, evidence-based QI bundle was associated with significant and sustained reductions in mortality and major morbidities among preterm infants in a tertiary NICU.





ABSTRACT ID: PP 045

Title

Analysis of the Incidence Rate and Risk Factors of Periventricular-Interval Ventricular Hemorrhage in Extremely Preterm Infants

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ABSTRACT

Background and objective: Periventricular-intraventricular hemorrhage (PIVH) is a common severe brain injury in premature infants that impairs neurological development. This study analyzed the incidence and risk factors of PIVH in extremely preterm infants to provide evidence for clinical prevention and control. **Methods:** A retrospective study was conducted on 390 extremely preterm infants admitted to the NICU of the Third Affiliated Hospital of Zhengzhou University from 2015 to 2023. They were grouped by PIVH occurrence, with relevant clinical indicators collected. Univariate analysis and logistic regression were used to identify PIVH risk factors.

Results: The overall PIVH incidence was 48.5% (189/390), including 15.1% (59/390) severe (grade ≥ 3) cases. Infants with gestational age (GA) <26 weeks had a 67.5% PIVH incidence and 32.5% severe PIVH incidence. Logistic regression showed higher GA (OR=0.628, 95%CI 0.463–0.852, P=0.003) and birth hemoglobin (OR=0.986, 95%CI 0.977–0.995, P=0.002) were protective factors; invasive mechanical ventilation within 24 h (OR=1.639, 95%CI 1.040–2.582, P=0.002) and postnatal PS use (OR=2.364, 95%CI 1.152–4.850, P=0.019) were independent risk factors.

Conclusion: Extremely preterm infants have high PIVH and severe PIVH incidences, especially those with GA <26 weeks. Small GA, low birth hemoglobin, early invasive mechanical ventilation and postnatal PS use increase PIVH risk.





ABSTRACT ID: PP 046

Title	A Clinical Study on Predicting Standardized PICC Insertion Length at Different Venous in Low Birth Weight Infants Based on Anthropometric Parameters
Authors	WANG Li ¹ , GU Meibian ¹ , LI YiWei ¹ , GUO Jiaying ¹ , LU Yanrong ¹
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ABSTRACT

Introduction: Low birth weight infants (LBWI) frequently require peripherally inserted central catheter (PICC) placement for prolonged parenteral nutrition. Catheter tip malposition remains a major cause of catheter-related complications. Accurate prediction of insertion length is therefore critical. However, traditional surface measurement methods demonstrate limited precision in LBWI, and existing predictive models often fail to account for variations in puncture sites, limb laterality, and body positioning.

Objective: To evaluate the association between standardized PICC insertion length and anthropometric parameters in LBWI and to develop site-specific predictive equations.

Methods: In this retrospective study, 175 LBWI who underwent PICC placement in a tertiary NICU between January 2023 and December 2024 were included. Pearson correlation analysis was performed to examine relationships between anthropometric variables and standardized insertion length. Variables with significant correlations were entered into linear regression models to establish predictive equations for each venous access. Agreement between predicted and actual insertion lengths was assessed using Bland–Altman analysis.

Results: Standardized insertion lengths of the right basilic, right median cubital, right cephalic, and right great saphenous veins were positively correlated with arm circumference, leg circumference, and body weight (all $P < 0.05$), with body weight demonstrating the strongest correlation. Weight-based regression models were established for all four venous sites. Bland–Altman analysis showed small mean differences and acceptable limits of agreement.

Conclusions: Body weight is an independent predictor of standardized PICC insertion length in LBWI. Weight-based equations provide statistically reliable estimates for clinical application.





ABSTRACT ID: PP 047

Title	Clinical Analysis of Perinatal Center Established by Obstetric-Pediatric Collaboration for the Treatment of Extremely Preterm Infants
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ABSTRACT

Objective: To explore the efficacy of a perinatal center established through obstetric-pediatric collaboration in the management of extremely preterm infants, and to provide clinical evidence for improving the survival rate and quality of life of these infants.

Methods: Clinical data of 281 extremely preterm infants (gestational age < 32 weeks) born and treated in our perinatal center from January 2022 to December 2025 were retrospectively analyzed. Infants were divided into 7 groups according to gestational age, and survival rate and outcomes were compared among groups.

Results: Of the 281 extremely preterm infants, 250 survived, with an overall survival rate of 88.97%. Survival rate increased significantly with increasing gestational age (P-trend < 0.001). The lowest survival rate (40.00%) was observed in the <26 weeks group, while the highest survival rate (97.85%) was found in the 31st–31st weeks group.

Conclusion: The perinatal center model based on obstetric-pediatric collaboration can effectively integrate medical resources, optimize treatment procedures, and significantly improve the survival rate of extremely preterm infants, especially those with relatively higher gestational ages. For extremely immature infants (<26 weeks), further strengthening of perinatal management and multidisciplinary collaboration is still needed to continuously improve their prognosis.





ABSTRACT ID: PP 048

Title

Composition and Determinants of Birth Weight in Term New-borns

Authors

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ABSTRACT

Introduction: Birthweight is a critical public health indicator with low birthweight (LBW) associated with adverse neonatal outcomes and chronic diseases. In Sri Lanka, determinants of birthweight in term neonates, particularly distinguishing LBW and small for gestational age (SGA) from foetal growth restriction (FGR) remain understudied.

Objective: To describe the composition and determinants of birthweight in term neonates at a tertiary care centre.

Methods: A descriptive cross-sectional study was conducted at university neonatal unit of Colombo North Teaching Hospital, Sri Lanka. 437 live, term (>37weeks) singleton new-borns were recruited. The prevalences of LBW, SGA, and FGR were determined. Associations of LBW, SGA and FGR were analysed using the chi-square test.

Results: Mean birthweight was 2916(±408)g. Prevalence of LBW, SGA and FGR were 14.0%(n=61), 15.1%(n=66), and 14.9%(n=65), respectively. Among 61 LBW neonates, 46(75.4%) were SGA, and 31(50.8%) had FGR. Significant risk factors for LBW were female sex (OR:0.42;p=0.002), maternal underweight (OR:2.37;p=0.026), anaemia at delivery (OR:2.06;p=0.025), and history of stillbirths (OR:6.34;p=0.037). Risk factors for SGA and FGR were maternal underweight (p<0.05) and naemia at delivery (p<0.05). 8.2% of LBW neonates required intensive care.

Conclusion: Maternal underweight and anaemia are significant modifiable risk factors for poor birthweight. 20% of LBW neonates were neither SGA nor had FGR, suggesting normal intrauterine growth. 50% of neonates with both LBW and SGA did not have FGR, indicating constitutional/ familial impact. Therefore, extensive evaluation for pathological causes is not indicated in majority of term LBW and SGA neonates.





ABSTRACT ID: PP 049

Title	Neurological Outcomes Following Deep Hypothermia with Rapid Cooling in Pediatric Cardiac Surgery: Experience from the Norwood Palliation Procedure
Authors	Maksymilian Osiowski ¹ , Wojciech Silka ¹ , Jeremy Spula ¹ , Aleksander Osiowski ¹ , Tomasz Mroczek ¹
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ABSTRACT

Introduction: Strategies used to induce deep hypothermia during complex neonatal cardiac surgery may influence perioperative and neurological outcomes.

Objective: To evaluate the neurological outcomes of rapid cooling in patients undergoing Stage I Norwood palliation for hypoplastic left heart syndrome.

Methods: We conducted a retrospective analysis of 49 consecutive neonates with HLHS who underwent the Norwood procedure at the Children's University Hospital in Cracow between 2019 and 2024. Patients were cooled to deep hypothermia using either a rapid cooling protocol (RC, n=21) or a conventional non-rapid cooling approach (non-RC, n=28).

Results: Most patients were male (n=41, 83.7%). Median age at surgery was 9 days [Q1; Q3] [7; 12], and median weight was 3,592 g [3,300; 3,815]. Target temperatures were significantly lower in the RC group (12.9°C vs. 15.5°C, p<0.01), and reached faster (1.1°C/min vs. 0.65°C/min, p<0.01). The median cardiopulmonary bypass time was 127 minutes [103; 144], and median circulatory arrest time was 35.5 minutes [25; 47]. There were no deaths within 30 days postoperatively. One stroke occurred in the first 30 days after the operation, although it was not related to the procedure. No intracranial hemorrhage or clinical seizures were observed in the post-operative period.

Conclusions: Rapid cooling enables efficient attainment of deep hypothermia during Norwoodpalliation without increasing early mortality or major neurological morbidity, supporting its safety in high-risk neonatal cardiac surgery.





ABSTRACT ID: PP 050

Title

Mini-thoracotomy - a new approach to treat more complex congenital heart defects?
Evolution of Techniques for Pediatric Ostium Secundum ASD Closure

Authors

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ABSTRACT

Background: Over recent years, our institution has progressively refined its surgical strategy for ostium secundum atrial septal defect (ASD II) closure. The approach evolved from conventional total sternotomy to mini-sternotomy and, most recently, to right-sided mini-thoracotomy.

Objective: To evaluate the safety and efficacy of these evolving techniques for ASD II closure, highlighting the transition toward minimally invasive surgery.

Methods: We conducted a retrospective analysis of 100 consecutive pediatric patients who underwent surgical ASD II closure between January 2017 and December 2024 at the University Children's Hospital of Cracow. Surgical access was categorized as total sternotomy (TS, 39%), mini-sternotomy (MS, 55%), and right-sided mini-thoracotomy (RSMT, 6%).

Results: The cohort consisted predominantly of females (66.3%). Median age at surgery was 3.5 years (IQR 1.5–6.5), with a median weight of 20.7 kg. Mean cardiopulmonary bypass time was 50.4 minutes for RSMT and 38.4 minutes for MS, remaining comparable to TS. Primary closure was achieved in 77% of patients, while the remainder required an autologous pericardial patch. Median hospital stay was similar across groups (IQR 3–7 days). Postoperative complications were rare; one patient required reoperation for residual shunt. No neurological events were observed, and there was no 30-day mortality.

Conclusions: Minimally invasive ASD II closure is a safe and effective alternative to conventional sternotomy. Right-sided mini-thoracotomy, although technically demanding, offers excellent cosmetic outcomes and represents a promising direction for further development in pediatric congenital cardiac surgery.





ABSTRACT ID: PP 051

Title	Contemporary Management of High-Risk Hypoplastic Left Heart Syndrome - Insights from an Experienced Congenital Heart Centre
Authors	Wojciech Siłka ¹ , Jeremy Spula ¹ , Aleksander Szypulski ¹ , Maksymilian Osiowski ¹ , Aleksander Osiowski ¹ , Tomasz Mroczek ¹
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ABSTRACT

Introduction: Neonates with Hypoplastic Left Heart Syndrome (HLHS) and additional risk factors constitute a particularly vulnerable population with high early mortality.

Objectives: To evaluate an integrated, multidisciplinary management strategy for high-risk HLHS.

Methods: We retrospectively analyzed 67 consecutive neonates with HLHS treated at the Children's University Hospital in Cracow between November 2017 and December 2023. All patients had ≥ 1 predefined risk factor: birth weight < 3000 g, restrictive interatrial septum, coarctation of the aorta, ascending aorta diameter < 3 mm, or severe tricuspid regurgitation. Based on clinical status, patients underwent primary Norwood stage I (n=49), classic hybrid stage I (n=13), or initial hybrid followed by deferred Norwood (n=5).

Results: Thirty-day mortality did not differ between the primary Norwood and initial hybrid groups (16.3% vs. 16.7%, $p=0.97$). Most neonates (59.4%) presented with ≥ 2 risk factors, which were more frequent in the hybrid group than in the Norwood group (77.9% vs. 42.9%, $p=0.01$). After primary Norwood, 37 patients progressed to second-stage palliation at a median age of 6.8 months; 14 completed Fontan, 22 are awaiting completion, and 1 died after stage II. Among patients initially managed with a hybrid strategy, 7 underwent comprehensive stage II and 4 were bridged to deferred Norwood at a median of 48 days. In the deferred Norwood subgroup, 80% progressed to stage II without further mortality; half have completed Fontan.

Conclusions: High-risk HLHS remains associated with substantial mortality. An individualized strategy enables stabilization and comparable early survival despite greater baseline risk, facilitating progression through staged palliation.





ABSTRACT ID: PP 052

Title	New Materials in Pediatric Cardiac Surgery: Feasibility of the CardioCel 3D 60 Patch in Aortic Arch Reconstruction
Authors	Jeremy Spula ¹ , Wojciech Silka ¹ , Aleksander Szypulski ¹ , Aleksander Osowski ¹ , Maksymilian Osowski ¹ , Rafał Żurek ¹ , Jacek Kołcz ¹ , Tomasz Mroczek ¹
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ABSTRACT

Introduction: Limited data exist regarding the use of the CardioCel 3D 60 patch in aortic arch reconstruction for congenital heart defects.

Objectives: To assess the safety, efficacy, and clinical outcomes associated with the CardioCel 3D 60 patch in aortic arch repair.

Methods: A single-center retrospective study included 60 consecutive patients undergoing aortic arch reconstruction with the CardioCel 3D 60 patch at the Children's University Hospital in Krakow (October 2018–October 2024). The most prevalent diagnoses were hypoplastic left heart syndrome (n=24, 40.7%), hypoplastic aortic arch (n=17, 28.8%), atrioventricular canal defects (n=6, 10.2%), interrupted aortic arch (n=5, 8.5%), and other anomalies (n=8, 13.3%).

Results: Thirty-day mortality was 3.3% (n=2). Re-coarctation occurred in 28.3% (n=17) at a median of 147 days [83–181], requiring catheter-based reintervention in 20% (n=12), surgical reoperation in 1.7% (n=1), and combined approaches in 5% (n=3). The cohort comprised 53.3% males (n=32), with a median age of 12 days [IQR 8–57] and median weight of 3600 g [3000–4380] at surgery. Preoperative echocardiography showed median ascending aorta, transverse arch, and isthmus diameters of 4.7 mm [3–6.7], 4.0 mm [3.4–4.5], and 2.1 mm [1.8–3.4], respectively. Median cardiopulmonary bypass time was 114 minutes [88–147], with selective cerebral perfusion used in 29.6% (n=16). Median ICU and hospital stays were 15 [8–36] and 39.5 [26–74] days, respectively.

Conclusions: The CardioCel 3D 60 patch demonstrates feasibility in aortic arch reconstruction in infancy but is associated with non-negotiable re-coarctation rates, underscoring the need for vigilant surveillance and tailored reintervention strategies.





ABSTRACT ID: PP 053

Title	Observation Following Immunisation in Children with Congenital and Suspected Cardiac Disease: An Audit from a District General Hospital Nuwara Eliya , Sri Lanka
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ABSTRACT

Introduction: Infants and children with congenital heart disease (CHD) are considered physiologically vulnerable to stressors such as fever, tachycardia, and hypotension following vaccination. The Sri Lankan Ministry of Health recommends inpatient vaccination with close observation for selected high-risk cardiac conditions.

Objectives: To assess adherence to national guidelines on post-vaccination observation in children admitted with congenital or suspected cardiac disease and to describe adverse events following immunisation (AEFI).

Methods: A retrospective clinical audit was conducted among children admitted for postvaccination observation in a district general hospital Galle from 01/12/2025 to 31/01/2026, Sri Lanka. Audit standards were derived from the Ministry of Health General Circular No. 01-26/2012.

Results: Seventeen children were included. Sixteen (94.1%) were observed for ≥ 24 hours. Adverse events were observed in 29.4% of children, predominantly fever. No serious cardiovascular instability, ICU admission, or mortality occurred.

Conclusion: Although observation duration was high, a significant proportion of admissions did not strictly meet national criteria. Post-vaccination adverse events were mild and self-limiting.





ABSTRACT ID: PP 054

Title	Knowledge and practices regarding prevention, snake identification and pre-hospital management of paediatric snakebites among Public Health Midwives in Sri Lanka: A nationwide cross-sectional study
Authors	Kavinda Dayasiri ¹ , Tharuka Perera ¹ , Gihan Gunarathna ¹ , Achila Ranasinghe ¹ , Indika Gawarammana ² , Shaluka Jayamanne ¹
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ABSTRACT

Introduction: Snake envenoming remains a major public health problem in Sri Lanka, disproportionately affecting rural children. Public Health Midwives (PHMs) play a key role in community-level prevention and early management, yet their knowledge regarding paediatric snakebites has not been nationally evaluated.

Objectives: To assess knowledge and practices of PHMs regarding prevention, snake identification and pre-hospital management of paediatric snakebites, and to identify factors associated with adequate knowledge.

Methods: A nationwide cross-sectional survey was conducted among 1,706 PHMs across all 25 districts using stratified random sampling. A validated, self-administered questionnaire assessed knowledge on first aid, snake identification, envenomation, treatment and prevention. Knowledge scores were categorised as adequate or inadequate. Associations were analysed using Chi-square tests.

Results: Although most PHMs recognised the importance of reassurance (95.9%) and immediate hospital transfer (95.8%), many endorsed harmful practices such as sucking venom (71.6%), applying herbs (73.2%) and cutting the bite site (64.4%). Only 48.7% identified limb immobilisation as appropriate first aid. Snake identification accuracy was high for cobra (94%) but low for kraits and vipers (<40%). Overall, 58% demonstrated adequate knowledge. Prior training, and awareness of national guidelines were significantly associated with adequate knowledge ($p < 0.001$).

Conclusions: Significant knowledge gaps and persistent misconceptions exist among PHMs regarding paediatric snakebite management. Structured training, curriculum integration and strengthened links with national support services are urgently needed to enhance community-level preparedness and reduce morbidity among children in Sri Lanka.





ABSTRACT ID: PP 055

Title	Comparison of Theoretical Knowledge and Psychomotor Performance Across Medical Specialties During Advanced Paediatric Life Support (APLS) Training
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ABSTRACT

Introduction: Doctors from various medical specialties participate in the Advanced Paediatric Life Support (APLS) course, an internationally recognised programme aimed at enhancing theoretical knowledge and practical skills in managing paediatric emergencies. This study examined whether doctors from different specialties show differences in theoretical knowledge and psychomotor performance during APLS training.

Objectives: To compare performance across different medical specialties, including baseline knowledge, improvements in theoretical knowledge, and psychomotor performance.

Methods: A descriptive cross sectional study was conducted among doctors attending the APLS programme from April to November 2023. Of 117 consenting participants, 108 provided complete data. Theoretical knowledge was assessed using multiple choice questions before and after the course, and psychomotor skills were evaluated with a performance index derived from structured skill assessments. Participants were categorised into four groups: Anaesthesia and Critical Care, Paediatrics and Neonatology, Emergency Medicine, and Other specialties. Data were non-normally distributed (Shapiro-Wilk test) and analysed using Kruskal-Wallis H tests to compare groups.

Results: Participants included 36 (33.3%) Anaesthesia and Critical Care, 29 (26.9%) Paediatrics and Neonatology, 25 (23.1%) Emergency Medicine, and 18 (16.8%) Other specialties. Mean scores were: pre-course MCQ 69.06% (SD 31.21), post-course MCQ 84.64% (SD 7.89), and performance index 66.35% (SD 7.97). No statistically significant differences were observed across specialties for pre-course MCQ ($p = 0.347$), post-course MCQ ($p = 0.143$), or performance index ($p = 0.295$).

Conclusions: APLS training significantly improves theoretical knowledge and psychomotor skills, with comparable outcomes across medical specialties, supporting its broad applicability for doctors regardless of primary specialty.





ABSTRACT ID: PP 056

Title

Ultrafiltration and fluid balance during continuous renal replacement therapy in children: a single-center retrospective study

Authors

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ABSTRACT

Introduction: Fluid overload (FO) significantly increases mortality in critically ill children. While continuous renal replacement therapy (CRRT) is key for managing FO, optimizing the net ultrafiltration rate (NUFR) remains challenging.

Objective: To assess the impact of initial FO, body weight (BW), and capillary leak index (CLI) on NUFR and fluid balance (FB) in pediatric patients receiving CRRT.

Methods: This single-center retrospective study (Jan 2012-Oct 2023) included 220 pediatric CRRT patients. Exclusion criteria were: expected death within 24 hours, CRRT duration <72 hours, and incomplete data. Key variables were FO, CLI, and NUFR. Primary outcomes were 28-day mortality and associations between NUFR, FB, and outcomes.

Results: Compared with the death group, the survival group had significantly higher BW and age at the start of CRRT, while the SOFA score, PRISM-III score, CLI, and FO were lower in the survival group. From the first 24 hours to the third 24 hours of CRRT, NUFR exhibited a gradually decreasing trend. Patients with higher initial FO had higher NUFR, while those with lower BW also had relatively higher NUFR. Although CLI did not significantly affect NUFR, it was associated with higher FO. Throughout the entire CRRT process, FB consistently showed negative values, particularly during the first 24 hours.

Conclusions: NUFR during pediatric CRRT should be adjusted individually based on initial FO, BW, and CLI, with FB serving as a valuable reference. Further research is needed to establish precise fluid management guidelines.





ABSTRACT ID: PP 057

Title

Fluid Overload Clearance Percentage (FOCP): A Weight-Independent Prescription Target for the First 24h of Pediatric CRRT

Authors

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ABSTRACT

Introduction: Net ultrafiltration rate (NUFR) and net fluid balance (NFB) during pediatric continuous renal replacement therapy (CRRT) are influenced by patient weight and disease state. We investigated how body weight (BW), baseline fluid overload (FO), and capillary leak index (CLI) determine NUFR, NFB, and the FO clearance percentage (FOCP), and related these to hemodynamic changes.

Objective: To explore the dynamic relationships among NUFR, NFB, FOCP, FO severity, CLI, and BW during the first 24 hours of pediatric CRRT, and assesses FOCP as a potential simplified prescription target.

Methods: This retrospective single-center cohort study (2012–2023) included children receiving ≥ 24 hours of CRRT with complete data. Primary objectives were to quantify how BW, FO, and CLI determine NUFR, NFB, and FOCP. Secondary objectives were to correlate these parameters with hemodynamic changes (Δ MAP and Δ VIS).

Results: NUFR was highest in the lowest BW group ($5.3 \text{ mL kg}^{-1} \text{ h}^{-1}$), declining stepwise to $1.5 \text{ mL kg}^{-1} \text{ h}^{-1}$ in the heaviest group ($p < 0.001$). Higher baseline FO ($\geq 5\%$) was associated with higher NUFR ($p < 0.001$). NFB followed similar BW- and FO-dependent patterns. In contrast, FOCP (20.8–54.1%) remained consistent across all BW, FO, and CLI subgroups (all $p > 0.05$) and retained close correlation with NFB ($r = 0.83$). Hemodynamics remained stable or improved across all subgroups.

Conclusions: While BW and FO critically determine NUFR and NFB, FOCP is independent of these variables and closely linked to fluid removal, offering a simple, weight-independent prescription target for the first 24 hours of pediatric CRRT.





ABSTRACT ID: PP 058

Title	Accuracy of the Brighton Pediatric Early Warning Score in Detecting Clinical Deterioration Events Among Pediatric Patients: Retrospective Cohort Study
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ABSTRACT

Introduction: Early identification of pediatric patients at risk of clinical deterioration in the emergency department (ED) is vital for improving outcomes and optimizing survival. Pediatric Early Warning Scores (PEWS) are clinical assessment tools designed to detect such deterioration and guide care escalation decisions.

Objectives: To determine the diagnostic accuracy and optimal cut-off point of the Brighton PEWS in detecting clinical deterioration events (CDE) among pediatric patients at a major emergency department in Davao City, Philippines.

Methods: This retrospective cohort study included 345 pediatric patients aged 1 month to 18 years at the Southern Philippines Medical Center ED from 2021 to 2022. Physiological parameters, including heart rate, respiratory rate, and oxygen saturation, were extracted to compute Brighton PEWS values upon arrival. The primary outcome was CDE occurrence, evaluated using the Area Under the Curve (AUC) and Youden index to identify the optimal cut-off.

Results: Among participants, 56 experienced CDE. Patients with CDE had significantly higher median Brighton PEWS (6.00 vs. 2.00; $p < 0.001$) and lower median pGCS (8.00 vs. 15.00; $p < 0.001$). The Brighton PEWS demonstrated excellent discriminatory ability with an AUC of 0.9064. The optimal cut-off was ≥ 4.00 , yielding a sensitivity of 76.79%, specificity of 88.58%, and a positive likelihood ratio of 6.72.

Conclusions: The Brighton PEWS shows strong diagnostic accuracy in predicting CDE in a pediatric ED setting. A cut-off score of 4.00 provides a balanced combination of sensitivity and specificity, serving as an effective trigger for timely clinical intervention.





ABSTRACT ID: PP 059

Title	Lactose intolerance among <5 years children with diarrhoea admitted in the paediatric ward of a Medical College Hospital in a rural area of Bangladesh.
Authors	A B M Ali Hasan ¹ , Md Manir Hossain ¹ , Tahmina Rahman ¹ , Md. Abdul Matin ¹ , Krishna Karmaker ² , Akash Chakrabarti ² , Md. Rubel Mia ² , Md. Faridal Mamun ²
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ABSTRACT

Introduction: Children suffering from diarrhoea are particularly vulnerable to the effects of lactose intolerance, as diarrheal illnesses can exacerbate lactose malabsorption due to intestinal damage and reduced lactase activity.

Objective: This study aimed to assess lactose intolerance among <5 years children with diarrhoea admitted in the paediatric ward of Kumudini Hospital.

Methods: The study investigated lactose intolerance patterns in children under 5 admitted to Kumudini Hospital's pediatric ward due to diarrhea from October 2023 to March 2024. Employing a cross-sectional design, convenience sampling selected participants, with parental consent obtained upon admission. Data collection involved demographic information, medical history, and clinical evaluations, including lactose tolerance tests. Descriptive statistics in SPSS 26 analyzed data to inform clinical management and dietary recommendations, ensuring ethical considerations.

Results: The study examined 180 individuals, predominantly aged 7-24 months (81.7%), with 59.4% males and 40.6% females. Most identified as Muslim (92.2%), with 60.6% weighing 8-11 kg. Maternal education varied, with 58.9% having secondary education. Family income was mainly within 5000-25000 BDT (65.55%). Breast milk and complementary feeding were the most common feeding practices (32.8%). Stool Reducing Substance test done in 106 patients (58.9%). The laboratory findings revealed positive in 38 patients (35.8%), and negative in 68 patients (64.2%). In the stool acidity test, acidic results were predominant, with 106 cases (100.0%). while most sugar tests showed trace green (65.8%), with fewer orange and red results.

Conclusion: Early detection and appropriate management of lactose intolerance can lead to improved outcomes and reduced morbidity in affected children.





ABSTRACT ID: PP 060

Title	Clinical and Biochemical Features Associated with Children Managed for Episode of Acute Pancreatitis
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ABSTRACT

Introduction: Acute pancreatitis in paediatrics is a condition with diverse aetiologies and outcomes.

Objectives: To identify clinical and biochemical factors associated with the severity and outcomes of children who were managed for an acute episode pancreatitis.

Methods: Gastroenterology clinic in Lady Ridgeway Hospital manages 31 children with pancreatitis. A retrospective descriptive study with an analytical component was carried out using the clinic database records of 17 children diagnosed with an acute episode of pancreatitis. Children who had recurrent acute pancreatitis and chronic pancreatitis were excluded from this study.

Results: The mean age was 7.71 years (SD=±3.45). Majority was females (76.5%,13). Prevalences of mild, moderate, and severe episodes were 47.1%, 29.4%, and 23.5% respectively. There was no statistically significant difference in sex (p=0.526) and mean age (p=0.826). There was no difference of duration of hospital stay among the groups (p=0.731). Prevalence of local complications were significantly higher in severe acute pancreatitis (p=0.037). Prevalences of local complications; acute peripancreatic fluid collection, acute necrotic collection, pseudocyst formation, and splenic vein thrombosis were 17.6%, 11.7%, 11.7%, and 11.7% respectively. C-reactive protein (CRP) level was significantly higher in severe acute pancreatitis (p=0.032). There were no significant differences in other biochemical parameters. Underlying pancreatic disorders were found in 5.8% and hepatobiliary disorders in 29.4% respectively.

Conclusions: Most of the acute pancreatitis' episodes were mild in nature. Local complications were higher in severe pancreatitis. CRP level was significantly elevated in severe pancreatitis episodes. Limited number of cases in a single-center, remains as a limitation of this study.





ABSTRACT ID: PP 061

Title	Efficacy of Beta-Galactosidase in Treatment of Infantile Colic in Infants Presenting To a Tertiary Care Hospital
Authors	Muhammad Aqeel Khan ¹ , Muhammad Jabir Khan Afridi ¹
Affiliations	¹ Hayatabad Medical Complex Peshawar, Pakistan

ABSTRACT

Background: Infantile colic is a common condition characterized by excessive crying in infants, often without an identifiable cause. It can significantly impact both infant and parental wellbeing, prompting the need for effective treatments.

Objective: To evaluate the efficacy of lactase enzyme (beta-galactosidase) in treating infantile colic in infants aged 1–6 months presenting to a tertiary care hospital.

Study Design : A descriptive study. Place and duration of study . 6 months from july 2024 to dec 2024 MTI Hayatabad Medical Complex, Peshawar

Methods: This descriptive study was conducted over six months in the outpatient department of a tertiary care pediatric unit. A total of 71 infants with infantile colic were enrolled based on the "3-3-3 rule." Lactase enzyme drops were administered before each feed. Efficacy was measured by reduction in crying time to <3 hours/day at two weeks, as reported by parents.

Results: Out of 71 infants, 61 (85.9%) showed improvement in colic symptoms, while 10 (14.1%) had persistent symptoms. Efficacy was observed more frequently in urban residents, infants with middle socioeconomic status, and those on top feeding.

Conclusion: Lactase enzyme supplementation is an effective intervention for infantile colic and significantly reduces parental stress and infant discomfort.





ABSTRACT ID: PP 062

Title	A retrospective, descriptive study on the frequency, flow-cytometry characteristics and type of acute leukaemias in a cohort of patients at a tertiary care hospital in Sri Lanka
Authors	Chitranga Chysanthi Kariyawasan ¹ , Thushara Balasuriya ¹ , Sahan Madusanke ¹ , Pavithra Kulasooriya ¹ , Chandima Fernando ¹
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ABSTRACT

Introduction: Paediatric acute leukaemias (PAL) are the commonest haematological malignancy noted in South-East Asia (SEA), with 70-85% being acute lymphoblastic leukaemia (ALL). Studies from Asian populations demonstrate lymphoid predominance, predominantly between 5-10 years. Published data in Sri Lanka is limited.

Objective: To evaluate haematological, morphological and immunophenotypic characteristics of PAL diagnosed between 2021 - 2025 and compare with SEA data.

Methods: A retrospective descriptive cross-sectional study conducted on patients ≤ 15 years diagnosed with acute leukaemia. Full blood count (FBC) was performed on BC Mindray 6800 Plus automated analyzer. Morphological assessment done on Leishman-stained blood and bone marrow aspirate smears. Flow cytometry performed using BD FACSCanto™ II analyzer.

Results: Of 73 PAL cases, B-ALL was 80.8% while AML and T-ALL were 9.6% each. Mean age at diagnosis was 7.6 ± 3.9 years with male predominance. Marked leukocytosis was prominent with a mean white blood cell count of $58.6 \pm 46.2 \times 10^9/L$ with a maximum of $182 \times 10^9/L$. Anaemia and thrombocytopenia were consistent across all subtypes. Bone marrow examination demonstrated diffuse blast infiltration. Flow cytometry confirmed B-ALL cases with CD19 and cyCD79a expression and CD34 positivity. The proportion of B-ALL observed in this cohort was comparable with reported SEA populations.

Conclusion: PAL in this cohort demonstrated subtype distribution comparable with SEA, but presented with marked leukocytosis and other cytopenias, indicating advanced disease. This underscores the need for early diagnosis. Cytogenetics is essential for risk stratification in PAL at diagnosis, but is a considerable limitation in our limited resource setting.





ABSTRACT ID: PP 063

Title	Rational Use of Blood Products Among Pediatric Patients at Western Visayas Medical Center from January 202 to December 2020 - A Cross Sectional Study
Authors	Aira B. Sobretudo ¹ , Trixy G. Chu ¹
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ABSTRACT

Background: Rational blood use have always been a challenge in the medical practice. Rational blood use is important to lessen the demand for blood products and to transfuse blood only when necessary.

Objectives: To determine the rational and irrational use of specific blood product/s as to age, gender, indications of transfusion and department-in charge, to establish the percentage of blood products used as to blood type and to describe the transfusion reactions/complications.

Methods: This is a cross-sectional study on the rational use of blood products conducted in a 700 bed capacity tertiary hospital. This study aimed to evaluate the compliance to rational use of blood products.

Results: Pre-school age has the highest rational use (86%) while Neonates has the highest irrational use (87). Males had the highest rational use (70%). Cryoprecipitate had the highest rational (100%) use while Whole Blood had the highest irrational use (85%). Pediatrics had the highest rational use (80%) while EENT had the highest irrational use (83%). PRBC was the most requested blood product and Type O was the most requested blood type. Transfusion reactions was 3%.

Conclusion: The rational and irrational use of blood products in pediatric patients was significantly associated with factors such as the patient's age, indication for transfusion as to blood product used, and department in-charge which can significantly influence the appropriateness of blood product use except for sex. A significant association exists between the percentage of blood products used and blood type and the likelihood or occurrence of transfusion reactions/complications.





ABSTRACT ID: PP 064

Title	Application research of traditional Chinese medicine foot bath combined with evidence-based nursing intervention for children with allergic purpura
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ABSTRACT

Objective: To explore the therapeutic effect and nursing value of traditional Chinese medicine foot bath combined with evidence-based nursing intervention on children with allergic purpura (HSP).

Methods: A randomized controlled trial design was used to select 120 children with HSP admitted to our pediatric department from June 2022 to June 2025. They were randomly divided into a control group (n=60) and an observation group (n=60). The control group received routine nursing intervention, while the observation group received traditional Chinese medicine foot bath combined with evidence-based nursing intervention on the basis of routine nursing. Compare the clinical symptom relief time, laboratory indicators, recurrence rate, and other indicators between two groups of pediatric patients.

Results: The disappearance of rash, relief of joint swelling and pain, and improvement of abdominal pain in the observation group were significantly shorter than those in the control group ($P < 0.01$); After intervention, IgA levels in the observation group were significantly lower than those in the control group, and complement C3 levels were significantly higher than those in the control group ($P < 0.05$); The recurrence rate in the 3-month follow-up observation group (6.67%) was significantly lower than that in the control group (21.67%) ($P < 0.05$).

Conclusions: Traditional Chinese medicine foot bath combined with evidence-based nursing intervention can effectively alleviate clinical symptoms, improve immune function, and reduce recurrence rate in children with HSP.





ABSTRACT ID: PP 065

Title

Does height increase after kidney transplantation? Evidence from Sri Lanka

Authors

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ABSTRACT

Background: Growth is believed to improve after a kidney transplant. Adequate catch-up growth following a kidney transplant may result in normal stature.

Methodology: A retrospective observational study was carried out among post renal transplant children at TH Peradeniya. A total of 30 children were recruited to the study between the ages of 11 to 18 years. The rate of height increase in the twelve months before and after transplantation was calculated as the pre- and post-renal transplant height velocities, which were then compared for statistical significance using the paired T-test.

Results: All the participants had a functioning graft. None of them had a history of previous orcurrent use of Growth Hormone. Majority of the participants had no history of being onprednisolone prior to transplantation (n= 26, 86.7%).Two-thirds of the participants (n= 20, 66.7%) had no increase in height in the year before transplantation, with a mean height velocity of 0.08cm/month (SD=0.16 cm/month) in the total study population. The mean height velocity in the year post-transplantation was 0.7cm/month (SD=0.36 cm/month).

The paired t-test showed a statistically significant difference in the pre- and posttransplantation velocities in the study population (t (28) = -8.78, p<0.001).

Conclusions: These findings show evidence that there is a significant difference in the height velocities of children post-transplantation, despite being on prednisolone and in the absence of growth hormone. Further research on a larger sample and a longer duration of follow-up is required to gather more substantial evidence to find the optimal growth velocity level.





ABSTRACT ID: PP 066

Title	Indications for Paediatric Renal Transplantation in Sri Lanka: A Single-Centre Retrospective Study
Authors	Veneesha Liyanage ¹ , Bandula Samarasinghe ¹ , MD Lamawansa ¹ , Thilina Samarasinghe ¹
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ABSTRACT

Introduction: Kidney transplantation is the preferred treatment for children with end-stage renal failure (ESRF). In paediatric populations, congenital and developmental renal disorders are major causes of ESRF; however, data describing indications for paediatric renal transplantation in Sri Lanka are limited.

Objectives: To describe the demographic profile and underlying indications for paediatric renal transplantation at a tertiary centre in Sri Lanka and to compare indication patterns between age groups.

Methods: A retrospective analytical study included children aged <18 years who underwent kidney transplantation at Teaching Hospital Peradeniya between 2004 and 2024. Of 143 transplants performed, 130 with complete data were included in the analysis. Indications were categorised as congenital anomalies of the kidney and urinary tract (CAKUT), glomerulonephritis, familial nephropathy, nephrotic/nephritic syndrome, cystic renal disease, renal parenchymal disease, and other causes. Recipients were stratified into two age groups (<10 years and ≥10 years). Categorical comparisons were performed using Fisher's exact test.

Results: Among 130 recipients, 87 (66.9%) were male and 43 (33.1%) were female. CAKUT was the leading indication for transplantation (53.1%), followed by glomerulonephritis (12.3%). Comparison of indication patterns between age groups showed no statistically significant difference ($p = 0.890$). A significant male predominance was observed within the CAKUT subgroup ($p = 0.004$).

Conclusions: CAKUT is the leading indication for paediatric renal transplantation in this SriLankan cohort, consistent with international paediatric transplant trends. The marked male predominance and stable indication pattern across age groups highlight the importance of early recognition and management of congenital renal disease.





ABSTRACT ID: PP 067

Title	Kidney and urinary tract anomalies in a cohort of children with Down syndrome in Sri Lanka: A descriptive study
Authors	Abiramie Jeykrishna ¹ , Ruwangi Dissanayake ¹ , Masha Seekkubadu ¹ , Jerard Fernando ¹ , Randula Ranawaka ¹
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ABSTRACT

Introduction: Down syndrome (DS) is the commonest chromosomal abnormality and has multisystem involvement, including the anomalies of the kidney and urinary tract with a prevalence ranging from 3–20%. Data from South Asia remains limited.

Objectives: To describe the prevalence, spectrum, clinical presentation, and renal complications of anomalies of kidney and urinary tract in children with DS.

Methods: A descriptive cross-sectional study was conducted among children aged <16 years with DS attending the Child Development Clinic at the University Paediatric Unit, Lady Ridgeway Hospital for Children. Data were collected using an interviewer-administered questionnaire, supported by review of clinical records and investigations.

Results: Ninety-nine children with DS were enrolled, including 58 males (male: female ratio 1:0.7). Mean age was 41 months (SD 40.37). Anomalies of kidney and urinary tract were identified in 21 (21.2%). Three affected children (14.2%) had reduced eGFR with features of chronic kidney disease. Seven were detected antenatally (7%), while 14 (14%) were newly identified during the study. Abnormalities included renal pelvic fullness (n=14; 66%), posterior urethral valves (n=3; 14%), bilateral small kidneys (n=2; 9.5%), ectopic kidney (n=1; 4.7%), and pelvi-ureteric junction obstruction (n=1; 4.7%). Common clinical presentations were poor urinary stream (33%), urinary incontinence (28%), and dribbling (23%). Recurrent urinary tract infections were observed in 20%.

Conclusions: Children with DS have a high prevalence of kidney and urinary tract anomalies, with many remaining undiagnosed without targeted screening. Early systematic evaluation should be integrated into routine care to enable timely detection, intervention, and prevention of long-term renal morbidity.





ABSTRACT ID: PP 068

Title

Acute Kidney Injury in Critically Ill Children at a Tertiary Care Paediatric ICU in Sri Lanka: Incidence, Aetiology, Risk Factors, and Clinical Outcomes

Authors

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ABSTRACT

Background: Acute kidney injury (AKI) is a major contributor to morbidity and mortality among critically ill children. Understanding the epidemiology and determinants of AKI in resource-limited paediatric intensive care units (PICUs) is essential for targeted prevention and management strategies.

Objectives: To determine the incidence, aetiology, risk factors and clinical outcomes of AKI among children admitted to a tertiary care PICU in Sri Lanka.

Methods: A descriptive observational study was conducted among 260 consecutive PICU admissions. AKI was identified and staged using KDIGO criteria. This study was funded by the research grant awarded by the Sri Lanka Society of Nephrology.

Results: AKI occurred in 57 children, giving an incidence of 21.9%. AKI was predominantly prerenal in origin (75.4%) and sepsis was the main aetiology. Majority (49.1%) had AKI stage 3. Requirement for inotropic support was significantly associated with AKI ($p = 2.87 \times 10^{-4}$). Clinical outcomes among AKI patients were poor: 52.6% achieved complete renal recovery, 3.5% had partial recovery, while 43.9% died, compared to the overall PICU mortality rate of 17.7%. Markedly higher death rate in the AKI group compared to non-AKI patients ($p = 1.40 \times 10^{-4}$). Mortality was particularly associated with higher AKI stage ($p = 0.019$). Only 1.5% of the total cohort underwent RRT. Exposure to nephrotoxic medications was high among AKI patients (77.2%), ($p = 0.168$).

Conclusion: AKI affects nearly one in five critically ill children in this tertiary care PICU and is characterised by predominantly pre-renal aetiology, high disease severity, and significantly increased mortality.





ABSTRACT ID: PP 069

Title	Parental knowledge regarding availability, indications and contraindications of vaccines for the children with Nephrotic Syndrome.
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ABSTRACT

Introduction: Children with Nephrotic syndrome are at increased risk of vaccine-preventable infections due to disease-related immune dysfunction and the effects of immunosuppressive therapy. Altered immune responses and concerns about vaccine safety during immunosuppression may delay or prevent timely immunization. Therefore, adequate parental knowledge regarding the disease and recommended vaccinations is essential. This study aimed to assess the level of knowledge about Nephrotic syndrome and vaccinations among parents of affected children.

Methodology: A descriptive, cross-sectional quantitative study was conducted among 196 parents at Teaching Hospital Peradeniya. Data were collected using a validated self-administered questionnaire until the required sample was achieved and entered into Microsoft Excel and analyzed using R software. A p-value <0.05 was considered statistically significant.

Results: Overall knowledge regarding disease and vaccination was predominantly moderate, with a median score of 8.0 (IQR: 5.0–12.0). Knowledge about the disease was mostly moderate (54%), while 35% demonstrated high knowledge and 12% had low knowledge. Vaccination knowledge was also mainly moderate (34%); however, 33% showed low knowledge, indicating comparatively poorer understanding than disease-related knowledge. The lowest scores were observed in knowledge regarding vaccine indications and contraindications, highlighting a significant knowledge gap. A statistically significant association was found between knowledge and gender ($p < 0.001$). Age and Education level has no statistically significant association with knowledge.

Conclusion: Parental knowledge regarding vaccinations was lower than knowledge about the disease itself, emphasizing the need for targeted educational interventions to improve vaccination awareness.





ABSTRACT ID: PP 070

Title	GRIN-Related Epilepsy in Chinese Pediatric Patients: Clinical, Genetic, and Mutant Protein Structural Investigations form a Tertiary Center Cohort
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ABSTRACT

Introduction: GRIN-related disorders are characterized by pediatric-onset epilepsy and neurodevelopmental delay, but data from Chinese cohorts remain limited..

Objective: To characterize clinical, genetic and in silico structural features of GRIN-related epilepsy in Chinese children.

Methods: We retrospectively analyzed 33 unrelated pediatric patients with pathogenic/likelypathogenic GRIN variants treated at Peking University First Hospital (2019–2025). Clinical phenotypes, genetic analysis, protein structure features and genotype-phenotype correlations were evaluated.

Results: Thirty-three probands (male-to-female ratio of 1.58:1) were enrolled. Median seizure onset was 1.58 years (IQR 0.36–3.00); onset in GRIN2A was later than GRIN2B (2.75 vs 0.63 years, $P < 0.01$). Most patients (87.9%, 29/33) had multiple seizure types; focal impaired awareness seizures predominated (87.9%). Drug-resistant epilepsy affected 78.8% (26/33); only 12.1% (4/33) were seizure-free with ≤ 2 anti-seizure medications. Intellectual disability or developmental delay (ID/DD) occurred in 93.9% (31/33); GRIN2B patients had the most severe outcomes (100% ID/DD; ASD 25%). Electroencephalogram of GRIN2A patients often showed multifocal discharges and electrical status epilepticus in sleep (93.3% and 53.3%). We identified 33 unique de novo variants (72.7% missense; 15 novel); 83.3% missense variants (20/24) lay in high-constraint regions. Structural modeling showed LBD-S2 destabilization (median root-mean-square deviation 0.71 Å) and extracellular M3 displacement (median 1.03 Å). High-impact missense variants trended toward earlier onset and higher ASD prevalence but differences were not significant ($P > 0.05$).

Conclusions: In this cohort, GRIN-related epilepsy is frequently drug-resistant with severe neurodevelopmental impairment. Missense variants cluster in constrained LBD/TMD regions; in silico LBD-S2 and M3 alterations potentially contribute to pathogenic mechanisms.





ABSTRACT ID: PP 071

Title

Vitamin D levels in Sri Lankan children with chronic kidney disease: A single centre study

Authors

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ABSTRACT

Introduction: Vitamin D (VitD) deficiency is common in children with chronic kidney disease (CKD) with a reported prevalence of 28-58%. It is a modifiable risk factor that contributes to bone mineral dysregulation and appears to be an independent predictor of CKD progression and mortality. Prevalence varies widely among nations as well as within CKD populations. As Sri Lankan data is lacking, this study was conducted to understand the local disease burden.

Objective: To determine prevalence of VitD deficiency and insufficiency in children with CKD and to evaluate association between VitD levels and glomerular filtration rate (GFR), gender, age, body mass index, parathyroid hormone levels (PTH) and stages of CKD.

Method: A descriptive cross-sectional study was conducted among children with CKD attending Paediatric Nephrology clinic at National Hospital, Galle.

Results: A total of 233 children with a mean age of 9.1 ± 4.7 years and mean eGFR of 82.1 ± 32.8 ml/min/1.73m² were included. The mean VitD level was 99.6 ± 37 nmol/L. Overall, 180(77%) had sufficient levels, while 38(16%) were insufficient and 14(6%) were deficient. One had toxic levels. Fourteen children (6%) have received VitD intramuscular injections in the past 6 months. Males ($M=104.6, SD=38$) had significantly higher levels than females ($M=87.35, SD=31.65$); $t(231)=3.55, p<.001$. Vitamin D levels showed a significant negative correlation with age($p<0.01$), gender($p<0.01$), BMI($p<0.05$) and eGFR($p<0.05$). No significant correlation was observed with CKD stages and PTH values.

Conclusions: This cohort demonstrated a low prevalence of vitamin D deficiency. Periodic monitoring and regular supplementation of vitamin D may successfully reduce the prevalence of vitamin D deficiency in children with CKD.





ABSTRACT ID: PP 072

Title	Improving the measurement and management of blood pressure in children attending community-based clinics in South Western Sydney: A Quality Improvement Project
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ABSTRACT

Background: Despite the known rise in chronic diseases, systematic blood pressure (BP) screening in Paediatric community clinics remains challenging. As part of quality improvement, we evaluated BP measurement practices, barriers to routine screening and documentation, and clinician responses to abnormal readings.

Methods: We audited electronic medical records for children aged 3–18 years attending Resilient Kids Clinics (RKC) in South Western Sydney, pre- and post-intervention over six months. The intervention comprised clinician education and equipment standardisation. Contemporaneously we audited a weight-management clinic (GHK) as benchmark. A clinician survey assessed perceived barriers/enablers.

Results: 245 children (RKC pre n=66, post n=100; GHK n=79; mean age 9.37±4.0 years) were included. BP measurement increased from 51.5% (RKC pre) to 67.0% (post) ($\chi^2(1)=4.00$, $p=0.045$), and post-intervention rates were comparable to GHK (70.9%, $p=0.578$). Measurement improved with age (from 9.1% in <5 years to 84.4% in 15–19 years). Children on psychostimulants were more likely to have BP recorded than those not on stimulants (88.6% vs 57.1%, $p<0.001$). Among omissions, documentation of a reason improved from 29.3% (RKC pre) to 48.5% (post). Of 162 children with BP recorded, 32 (19.6%) had abnormal readings; clinical acknowledgement occurred in 48%, with guideline adherence at 77%. Clinicians admitted to inconsistent BP measurement, due to time, patient compliance and equipment barriers.

Conclusions: Training and providing adequate resources improved blood pressure screening in Community Paediatric clinics. Challenges remain in assessing young children, those displaying challenging behaviours or distress, and clinical recognition/follow-up of abnormal readings; targeted solutions are needed to address these gaps.





ABSTRACT ID: PP 073

Title

Application of the Auto-EEG-Brain AGE Prediction Model in Children with SeLECTS

Authors

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ABSTRACT

Introduction: This study applied the Auto-EEG-Brain AGE model to evaluate Brain Age (BA) and Brain Age Gap Estimate (Brain AGE) in children with Self-limited epilepsy with centrotemporal spikes (SeLECTS) and to examine their associations with the development of Electrical status epilepticus during sleep (ESES), aiming to identify quantitative biomarkers for risk stratification.

Objectives: To characterize regional and stage-specific Brain AGE alterations across disease phases and to develop and validate a predictive model for ESES occurrence. **Methods:** A total of 453 children with SeLECTS spectrum disorders were included. Brain AGE was estimated from EEG data with bias correction. Group differences were assessed using linear mixed-effects models and propensity score matching. A Cox proportional hazards model was used to construct a risk score and nomogram. Model performance was evaluated by time-dependent ROC curves, C-index, calibration, Kaplan–Meier analysis, and decision curve analysis.

Results: The BA–chronological age correlation was lower in SeLECTS patients than in controls. Brain AGE showed significant regional gradients, with the greatest positive deviation in the central region and bidirectional abnormalities in the temporal region. Patients who developed ESES exhibited stage-dependent Brain AGE changes with a decreasing trend over disease progression. The Brain AGE–based model demonstrated moderate predictive performance.

Conclusions: Brain AGE sensitively captures abnormal neurodevelopmental patterns and dynamic alterations associated with SeLECTS and ESES. The integrated risk prediction model incorporating Brain AGE and clinical variables shows potential clinical utility for early identification and individualized management of high-risk patients.





ABSTRACT ID: PP 074

Title	Prevalence of Neurocutaneous Skin Lesions in Children with Febrile Convulsions and Their Role in Predicting Complex febrile convulsions and Recurrence risk
Authors	Prabhashwara Kularathne ¹ , Mihira Manamperi ¹ , Rasara Karawita ¹ , Chathuri Bandara ¹ , Jayathma Vithana ¹
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ABSTRACT

Introduction: Febrile convulsions (FC) are common in childhood. Simple febrile convulsions (SFC) and complex febrile convulsions (CFC) are considered benign. Presence of neurocutaneous skin lesions (NCSL) are also common in absence of a neurocutaneous syndrome (NCS).

Objectives: Study aimed to determine the prevalence of NCSL in FC children, to assess whether this prevalence is higher than the general population; and to evaluate whether NCSL are associated with CFC and recurrence risk.

Methods: Cross-sectional-descriptive-analytical study conducted at Jayewardenepura Hospital. Estimated sample size was 64. FC children based on International League Against Epilepsy criteria were included, while those with diagnosed Neurocutaneous-Syndromes were excluded. Data regarding current and past FC episodes, NCSL characters were assessed and analysed.

Results: 82 children presenting with FC were included. Of these, 24.4% had CFC at some point, 32.9% had experienced at least one recurrence, and 52.4% had at least one NCSL. Commonest NCSL were café-au-lait spots (31.7%), hypomelanotic macules (13.4%) followed by hemangiomas (6.5%). Prevalence of café-au-lait spots and hypomelanotic macules in this sample was higher than the general population ($\approx 10\%$ and $\approx 4-5\%$, respectively; $p < 0.05$), whereas other NCSL did not show a significant difference. There was no significant difference in the prevalence of NCSL (collectively or individually) between children with CFC and SFC (Collectively; 48.1% Vs 54.5%; $p = 0.586$). Presence, size and number of NCSL also not shown association with CFC or age-adjusted FC recurrence ($p > 0.05$).

Conclusion: According to this study, café-au-lait spots and hypomelanotic macules were more frequent in FC children compare to general population. However, NCSL presence, number, or size was not associated with an increased risk of CFC or recurrence. Confirmation of these findings requires large sample longitudinal study.





ABSTRACT ID: PP 075

Title

Clinical Efficacy and Multi-Omics Mechanistic Study of the Ketogenic Diet in Pediatric Drug-Resistant Epilepsy

Authors

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ABSTRACT

Introduction: Drug-resistant epilepsy (DRE) poses significant challenges in pediatric neurology. The ketogenic diet (KD) shows clinical efficacy, yet its molecular mechanisms remain unclear. This study investigated KD's metabolic regulatory mechanisms through multi-omics analysis.

Objective: To evaluate KD's clinical efficacy and safety in pediatric DRE and elucidate its metabolic mechanisms through lipidomics and proteomics integration.

Methods: A total of 206 DRE children were enrolled, with 28 undergoing proteomic and lipidomic analyses before and after 6-month KD treatment, compared with 21 healthy controls. Clinical outcomes, differential proteins, and lipid metabolites were analyzed.

Results: KD achieved higher seizure control (50.5% vs 37.9%, $P=0.03$) and EEG improvement (45.7% vs 29.2%, $P=0.04$) than conventional treatment, with better neurodevelopment in ages 0-8 years. Proteomics identified 284 differential proteins pre-KD, reducing to 29 post-KD, with reversed trends in oxidative phosphorylation.





ABSTRACT ID: PP 076

Title	Psychological distress in children with epilepsy in Sri Lanka: Preliminary findings from a cross-sectional study with multivariable linear regression analysis
Authors	Weerapperuma SG ¹ , Dalpatadu KCS ¹ , Dalpatadu SAC ² , Cooray TCMGDP ³
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ABSTRACT

Introduction: Epilepsy is a common chronic neurological disorder in childhood and is frequently accompanied by emotional and behavioural difficulties. While seizure control is often the primary therapeutic focus, the psychological burden experienced by children with epilepsy remains insufficiently characterised. Understanding the extent and determinants of psychological distress is essential for comprehensive epilepsy care.

Objectives: To estimate the frequency of psychological distress among children with epilepsy and to examine its association with seizure-related and sociodemographic factors.

Methods: A cross-sectional study was conducted among 155 children with epilepsy attending a tertiary paediatric neurology clinic in Sri Lanka. Depression, anxiety and stress were assessed using the Depression Anxiety Stress Scales (DASS-21). Median scores and severity categories were described. Associations with seizure control, recent seizure occurrence and household income were examined using Mann-Whitney U tests, Kruskal-Wallis tests and multivariable linear regression.

Results: Moderate or higher symptoms were observed in 36.1%, 29.7%, 31.6% for depression, anxiety and stress respectively. Psychological distress scores did not differ significantly between seizure-free and not seizure-free groups, nor between those with and without seizures in the preceding three months (all $p > 0.05$). No significant differences were observed across household income categories. In multivariable analyses, seizure-related and sociodemographic factors were not independently associated with DASS-21 subscale scores.

Conclusions: A substantial proportion of children with epilepsy experience clinically significant psychological distress, independent of short-term seizure activity or socioeconomic status. Routine psychological screening should be integrated into paediatric epilepsy care in Sri Lankan settings.





ABSTRACT ID: PP 077

Title	Parenting Styles and Recent Seizure Occurrence in Children with Epilepsy: Preliminary Findings from a Multivariate Analysis
Authors	TCMGDP Cooray ¹ , KCS Dalpatadu ² , SAC Dalpatadu ³ , SG Weerapperuma ²
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ABSTRACT

Introduction: Seizure recurrence in children with epilepsy is primarily influenced by clinical factors. Family-level factors, including parenting behaviours, may also affect illness management and treatment adherence. However, evidence linking parenting styles to seizure outcomes remains limited.

Objectives: To examine associations between parenting styles and recent seizure occurrence among children attending a tertiary paediatric neurology clinic.

Methods: This cross-sectional study included 155 children aged 6–18 years with epilepsy. Parenting style was assessed using the Parenting Style Assessment Questionnaire (PSAQ-S). Seizure occurrence within three months was the primary outcome. Associations were analysed using non-parametric tests and logistic regression adjusting for age, sex, epilepsy duration, antiepileptic drug (AED) count, and seizure severity.

Results: Thirty-seven children (23.9%) had experienced a seizure within the preceding threemonths. In unadjusted analyses, higher Presenting Authoritarian (OR 1.112, 95% CI 1.035–1.194, $p=0.004$), permissive (OR 1.117, 95% CI 1.029–1.211, $p=0.008$), and neglectful (OR 1.092, 95% CI 1.008–1.183, $p=0.031$) scores were associated with recent seizure occurrence. In multivariate models, parenting subscales were no longer independently associated. Seizure severity (aOR 3.769, 95% CI 1.671–8.503, $p=0.001$), AED count (aOR 1.280, 95% CI 1.014–1.616, $p=0.038$), shorter duration of epilepsy (aOR 0.801, 95% CI 0.659–0.974, $p=0.026$) remained significant predictors.

Conclusions: These findings suggest that short-term seizure recurrence is driven predominantly by clinical disease burden rather than parenting style. Family dynamics may play a contextual or indirect role, but their independent influence appears limited in this setting. Further longitudinal research is needed to explore indirect family effects.





ABSTRACT ID: PP 078

Title

Psychological distress in children with epilepsy in Sri Lanka: Preliminary findings from a cross-sectional study with multivariable linear regression analysis

Authors

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ABSTRACT

Introduction: Epilepsy is a common chronic neurological disorder in childhood and is frequently accompanied by emotional and behavioural difficulties. While seizure control is often the primary therapeutic focus, the psychological burden experienced by children with epilepsy remains insufficiently characterised. Understanding the extent and determinants of psychological distress is essential for comprehensive epilepsy care.

Objectives: To estimate the frequency of psychological distress among children with epilepsy and to examine its association with seizure-related and sociodemographic factors.

Methods: A cross-sectional study was conducted among 155 children with epilepsy attending a tertiary paediatric neurology clinic in Sri Lanka. Depression, anxiety and stress were assessed using the Depression Anxiety Stress Scales (DASS-21). Median scores and severity categories were described. Associations with seizure control, recent seizure occurrence and household income were examined using Mann-Whitney U tests, Kruskal-Wallis tests and multivariable linear regression.

Results: Moderate or higher symptoms were observed in 36.1%, 29.7%, 31.6% for depression, anxiety and stress respectively. Psychological distress scores did not differ significantly between seizure-free and not seizure-free groups, nor between those with and without seizures in the preceding three months (all $p > 0.05$). No significant differences were observed across household income categories. In multivariable analyses, seizure-related and sociodemographic factors were not independently associated with DASS-21 subscale scores.

Conclusions: A substantial proportion of children with epilepsy experience clinically significant psychological distress, independent of short-term seizure activity or socioeconomic status. Routine psychological screening should be integrated into paediatric epilepsy care in Sri Lankan settings.





ABSTRACT ID: PP 079

Title	Development of a Child-Friendly Non-Invasive Brain-Computer Interface for Paediatric Locked-in Syndrome
Authors	Chathura Nirmal Weerasinghe ¹ , Dinujaya Wijewickrama ¹ , Risini Dinara Kumarasinghe ¹ , Jayamadu Gammune ¹ , Kithmin Wickremasinghe ² , Jithangi Wanigasinghe ³ , Peshala Jayasekara ¹ , Chamira Edussooriya ¹ , Pranjeevan Kulasingham ¹
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ABSTRACT

Introduction: Locked-in syndrome (LIS) in children is a rare neurological condition characterised by near-total paralysis despite preserved awareness and cognition. Affected children are unable to interact meaningfully with their environment, leading to loss of autonomy and reduced engagement. Current brain computer interface (BCI) systems for LIS are largely designed for adults. Paediatric-friendly BCI solutions remain scarce. This study presents a proof-of-concept noninvasive BCI system tailored for a paediatric patient.

Objectives: To develop and validate a proof-of-concept, training-free EEG paradigm-based BCI using a reduced electrode configuration for a child with LIS.

Methods: A non-invasive system was implemented using the OpenBCI Cyton board for EEG signal acquisition and transmission. A five-electrode setup using custom active dry comb electrodes was positioned according to the international 10-20 system at O1, Oz and O2, TP9 and TP10. The selected paradigm was Steady-State Visually Evoked Potentials (SSVEP). Visual stimuli were presented between 7 Hz and 15 Hz to evoke frequency-specific cortical responses. An adaptive signal processing pipeline was implemented incorporating temporary local multivariate synchronisation index and filter bank canonical correlation analysis for frequency detection. The system output was determined based on frequency-specific correlation responses.

Results: The developed signal processing pipeline was evaluated using a publicly available benchmark SSVEP dataset. The system achieved a classification accuracy of 88%. Preliminary experimental trials demonstrated reliable command detection under real-world conditions.

Conclusions: We demonstrate the feasibility of a proof-of-concept, training-free EEG paradigm-based BCI using a reduced-electrode configuration for a child with LIS laying the groundwork for increased autonomy.





ABSTRACT ID: PP 080

Title	Etiology, Clinical Presentation and Short-Term Neurological outcome of Intracerebral Hemorrhage in Pediatric Population presenting in Tertiary Care Hospital
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ABSTRACT

Objective: To study clinical presentation, aetiology and short-term outcome of pediatric intracerebral hemorrhage (pICH).

Methods: Study design: Prospective cohort study. Setting: The Department of Pediatrics, National Institute of Child Health, Karachi, Pakistan. Period: October 2023 to March 2025. A total of 44 children aged 1 month to 15 years with spontaneous ICH confirmed by CT/MRI were enrolled. Detailed clinical evaluation, laboratory investigations, and neuroimaging were performed. Outcomes were assessed using the modified Rankin Scale (mRS) at discharge, 3 months, and 6 months. Data were analyzed using SPSS version 26. Statistical comparisons made using appropriate parametric or nonparametric tests taking $p < 0.05$ was considered significant.

Results: Among 44 children, 31 (70.5%) were males, and median age was 8 years. Headache (72.7%), seizures (70.5%), loss of consciousness (68.2%), and fever (63.6%) were the most frequent presenting features. Baseline mean mRS was 4.89 ± 0.84 , improving to 4.48 ± 1.02 at discharge, 3.57 ± 1.58 at 3 months, and 3.30 ± 1.89 at 6 months ($p < 0.001$). Younger children (1–5 years) had lower baseline mRS (4.40 ± 1.24) than older (6–14 years: 5.14 ± 0.35 , $p = 0.004$). Males had lower disability at discharge (4.00 ± 0.78) compared to females (5.62 ± 0.51 , $p < 0.001$). Lower GCS correlated with higher mRS ($r = -0.508$, $p < 0.001$). Fits, rash, vomiting, behavioral changes, bladder dysfunction, and focal deficits were significantly associated with worse outcomes ($p < 0.05$).

Conclusion: The high burden of seizures, the influence of initial neurological status and lesion location on recovery, and the predominant role of vascular etiologies all emerge as critical considerations for clinicians.





ABSTRACT ID: PP 081

Title	Congenital Cytomegalovirus Infection as a Leukodystrophy Mimic: Clinical, Neuroimaging, and Outcome Spectrum
Authors	Arushi Gahlot Saini ¹ , Vikas Chauhan ¹ , Pradeep Gunasekaran ¹ , Renu Suthar ¹ , Sameer Vyas ¹ , Vikas Bhatia ¹ , Jitendra Kumar Sahu ¹ , Naveen Sankhyan ¹
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ABSTRACT

Objectives: To describe the clinical, neuroimaging, and functional outcome spectrum of children with symptomatic congenital CMV infection presenting with white matter abnormalities.

Methods: We conducted a cross-sectional observational study at a tertiary pediatric neurology center (Jan 2018-Dec 2019), including children aged 1 month to 14 years with confirmed or probable congenital CMV infection. Children with inherited leukodystrophies or other chronic neurological disorders were excluded. Clinical features, laboratory findings, and brain MRI data were collected, and functional outcomes were assessed using the Expanded Disability Status Scale (EDSS) at a minimum follow-up of three months.

Results: Twenty-six children were included (mean age 17±21.9 months; 19 males, 73%). Microcephaly was present in 20 (77%), developmental delay in 14 (54%), seizures in 8 (30%), and sensorineural hearing loss in 8 (30%). MRI (n=21) revealed universal white matter involvement: diffuse in 9 (43%), multifocal in 5 (24%), confluent in 3 (14%), and patchy in 1 (5%); periventricular location predominated (9, 43%), followed by subcortical (5, 24%). Cystic degeneration was observed in 5 (19%), and gray matter involvement was uncommon (3, 14%). Follow-up data were available for 17 children (65%), of whom 12 (71%) had moderate-to-severe functional disability (EDSS ≥5). Common sequelae included cerebral palsy in 9 (53%), persistent epilepsy in 7 (41%), and sensorineural hearing impairment in 5 (29%).

Conclusions: Symptomatic congenital CMV infection can closely mimic leukodystrophies in children presenting beyond infancy. Recognition of this pattern is critical to avoid unnecessary investigations, enable early diagnosis, and implement targeted developmental surveillance.





ABSTRACT ID: PP 082

Title

ZDHHC14 Overexpression Reduces Cortical Pyramidal Neuron Excitability in Mg²⁺-Free Seizure and Kcnt1-269 Mutant Rat Models

Authors

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ABSTRACT

Introduction: Neonatal seizures are common and phenobarbital has limited efficacy, creating a need for targets with better neurodevelopmental safety. ZDHHC14 is a palmitoyl acyltransferase that regulates PSD93/Kv1 channel clustering and neuronal excitability.

Objectives: To test whether ZDHHC14 overexpression reduces cortical pyramidal neuron excitability in an Mg²⁺-free in vitro seizure model and in Kcnt1-269 mutant rats modelling human KCNT1 p.G288S developmental and epileptic encephalopathy.

Methods: Neonatal Sprague–Dawley rats (<24 h) received bilateral intracerebroventricular pAAV-ZDHHC14 or pAAV-empty. After 6 weeks, acute cortical slices were perfused with Mg²⁺-free artificial cerebrospinal fluid and layer IV pyramidal neurons were studied by whole-cell patch clamp (RMP, EPSP frequency, evoked AP threshold/firing, outward K⁺ currents). Homozygous Kcnt1-269 rats were injected at postnatal week 2 and assessed 6 weeks later using the same protocol.

Results: In Mg²⁺-free slices, ZDHHC14 overexpression hyperpolarised RMP ($p < 0.05$), reduced EPSP frequency ($p < 0.01$), increased evoked AP threshold ($p < 0.01$), decreased firing frequency ($p < 0.01$) and increased outward K⁺ current amplitude ($p < 0.01$) versus controls. In Kcnt1-269 rats, ZDHHC14 overexpression hyperpolarised RMP ($p < 0.05$) and reduced firing frequency ($p < 0.01$).

Conclusions: ZDHHC14 overexpression consistently dampened cortical hyperexcitability and enhanced K⁺ currents, supporting ZDHHC14 as a potential antiseizure target.





ABSTRACT ID: PP 083

Title	Age-Stratified Mortality-to-Incidence Ratios in Pediatric Leukemia (0–19 Years): Implications for Pediatric Intensive Care in a Middle-Income Setting
Authors	Abarana Atchuthan ¹ , Perera DLTR ¹
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ABSTRACT

Background: Mortality-to-incidence ratio (MIR) is a pragmatic population-level indicator of cancer survival and health system performance. In pediatric leukemia, age-specific MIR variation may reflect differences in treatment response, disease biology, access to pediatric intensive care (PICU), and complication-related mortality. We evaluated age-stratified MIR patterns to identify vulnerable subgroups and implications for pediatric critical care delivery in a middle-income setting.

Methods: National registry data for pediatric leukemia (0–19 years) were analyzed, including age-specific incidence and mortality counts. Age groups were categorized as 0–4, 5–9, 10–14, and 15–19 years. MIR was calculated for each age group as mortality divided by incidence. Descriptive comparisons were performed across developmental strata, and patterns were interpreted in relation to known subtype distribution and adolescent disease burden.

Results: A total of 2,829 incident pediatric leukemia cases were identified, with the highest incidence observed in children aged 0–4 years (39.0%). Age-stratified MIR demonstrated heterogeneity across developmental stages. MIR was relatively lower in mid-childhood (5–9 years) and comparatively higher in adolescents (15–19 years). The adolescent group, characterized by a higher proportion of acute myeloid leukemia, showed increased mortality burden relative to incidence, suggesting greater clinical complexity and intensive care vulnerability.

Conclusions: Age-stratified MIR reveals developmental disparities in pediatric leukemia outcomes within a middle-income setting. Elevated MIR in adolescents highlights the need for strengthened PICU capacity, early sepsis management, and age-adapted supportive care strategies. MIR-based surveillance may serve as a simple tool for monitoring pediatric oncology system performance.





ABSTRACT ID: PP 084

Title	Developmental and Sex-Specific Heterogeneity in Pediatric Leukemia: A Population-Based Age-Subtype Interaction Analysis
Authors	Abarana Atchuthan ¹ , Perera DLTR ¹ , Dissanayake DMHN ¹
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ABSTRACT

Background: Pediatric leukemia exhibits marked variation across developmental stages and between sexes. While lymphoid predominance in early childhood is well established, agedependent shifts in subtype distribution and sex-modified effects remain undercharacterized in middle-income settings. We evaluated developmental heterogeneity and age–sex interaction patterns using national population-based data.

Methods: All pediatric leukemia cases (0–19 years) recorded in a national cancer registry were pooled ($n = 2,829$). Cases were stratified into age groups (0–4, 5–9, 10–14, 15–19 years) and categorized by lineage subtype. Subtype proportions were calculated within age strata. Logistic regression assessed odds of acute myeloid leukemia (AML) relative to acute lymphoblastic leukemia (ALL), using ages 0–4 years as reference. Age $\times$ sex interaction was evaluated using chi-square testing.

Results: Early childhood (0–4 years) accounted for 39.0% of cases. Lymphoid leukemia predominated in children aged 0–4 (71.2%) and 5–9 years (75.2%) but declined to 49.3% in adolescents. AML increased from 13.8% in early childhood to 34.2% in adolescents, with the AML:ALL ratio rising from 0.19 to 0.69. Adolescents demonstrated 3.65-fold higher odds of AML compared with children aged 0–4 years (95% CI 2.70–4.93; $p < 0.001$). Male predominance was observed across all age groups, and a significant age $\times$ sex interaction was identified ($\chi^2 = 192.86$; $p = 1.53 \times 10^{-28}$).

Conclusions: Pediatric leukemia demonstrates a robust developmental gradient with significant sex-modified subtype heterogeneity. The adolescent expansion of AML suggests age-dependent lineage susceptibility and supports a developmental framework for leukemogenesis.





ABSTRACT ID: PP 085

Title	Adolescent Expansion of Myeloid Leukemia: A Population-Based Signal Suggesting Hormonal Modulation of Leukemogenesis
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Affiliations	¹ PGIM, Sri Lanka

ABSTRACT

Background: Acute lymphoblastic leukemia (ALL) predominates in early childhood, whereas acute myeloid leukemia (AML) becomes increasingly represented during adolescence. Although this developmental shift is consistently observed, its biological drivers remain unclear. Puberty represents a major endocrine transition that influences immune and hematopoietic regulation. We evaluated whether age-specific subtype patterns support a hormonally mediated shift in leukemogenic lineage susceptibility.

Methods: All pediatric leukemia cases (0–19 years) recorded in a national registry were pooled ($n = 2,829$). Cases were stratified into age groups (0–4, 5–9, 10–14, 15–19 years) and classified by lineage subtype. Subtype proportions were calculated within age strata. Logistic regression assessed odds of AML relative to ALL using ages 0–4 years as reference. Age $\times$ sex interaction was evaluated using chi-square testing.

Results: Early childhood (0–4 years) accounted for 39.0% of cases, with lymphoid leukemia comprising 71.2%. AML proportion increased progressively from 13.8% in ages 0–4 to 20.7% in 10–14 years and peaked at 34.2% in adolescents. The AML:ALL ratio rose from 0.19 to 0.69 across developmental stages. Adolescents demonstrated 3.65-fold higher odds of AML compared with children aged 0–4 years (95% CI 2.70–4.93; $p < 0.001$). A significant age $\times$ sex interaction was identified ($\chi^2 = 192.86$; $p = 1.53 \times 10^{-28}$).

Conclusions: The marked adolescent expansion of AML temporally aligns with pubertal endocrine transition, supporting a developmental endocrine-immune framework for lineage-specific leukemogenesis.





ABSTRACT ID: PP 086

Title

Development and Validation of a Machine Learning-Based Prediction Model for Severe Respiratory Syncytial Virus Infection in Children Using SHAP Explanations

Authors

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ABSTRACT

Background: Respiratory Syncytial Virus (RSV) is a leading cause of severe lower respiratory tract infections in children, making early risk identification crucial for improving outcomes. This study aims to develop an interpretable machine learning model incorporating SHAP to predict severe RSV infection in children and identify key risk factors, providing an accurate and transparent tool for clinical decision-making.

Methods: We retrospectively collected data from RSV-infected inpatients at Tianjin Children's Hospital (2019-2023). After predictor selection using LASSO regression, 14 features were included. Seven algorithms (logistic regression, random forest, XGBoost, support vector machine, GBDT, decision tree, and AdaBoost) were employed to develop prediction models. Model performance was evaluated using five-fold cross-validation and AUC. SHAP was applied to interpret the optimal model.

Results: A total of 2595 pediatric inpatients with RSV infection were enrolled, including 2435 (93.8%) mild cases and 160 (6.2%) severe cases. Among the seven machine learning algorithms, the GBDT model achieved the best performance with an AUC of 0.8923 (95% CI: 0.845-0.931). SHAP analysis identified key predictors contributing to the model's decisions.

Conclusion: The GBDT-based model effectively predicts severe RSV infection in children (AUC=0.8923), and SHAP enhances interpretability, offering a reliable tool for early identification of high-risk patients.





ABSTRACT ID: PP 087

Title

A Predictive Nomogram for Severe RSV Infection in Children: A Retrospective, Single-Center Development and Validation Study

Authors

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ABSTRACT

Background: Respiratory syncytial virus (RSV) is a leading cause of severe lower respiratory tract infections in children. This study aimed to develop and validate a nomogram for early prediction of severe RSV infection by identifying independent risk factors.

Methods: We retrospectively analyzed clinical data of children diagnosed with RSV infection, dividing them into severe and non-severe groups. Variable selection was performed using Elastic Net regression combined with clinical knowledge on five multiply imputed datasets. A multivariable logistic regression model was then constructed. Internal validation was conducted using 500 bootstrap resamples to obtain optimism-corrected AUC and calibration slope, which was applied as a shrinkage factor to adjust regression coefficients.

Results: Of 2,595 children, 160 were in the severe group and 2,435 in the non-severe group. Five predictors were retained: neutrophil-to-lymphocyte ratio (NLR), age, winter onset, hypoxemia, and preterm birth. The pooled AUC was 0.847 (95% CI: 0.833–0.860), and the optimism-corrected AUC after bootstrap validation was 0.843. The calibration slope was 0.975, indicating low overfitting risk.

Conclusions: A nomogram incorporating five easily available predictors was developed to predict severe RSV infection in children. Internal validation demonstrated good discrimination and low overfitting, providing a practical tool for early identification of high-risk patients.





ABSTRACT ID: PP 088

Title

Feasibility and Interim Analysis: Impact of Cooking Fuel on Lung Oscillometry in Sri Lankan Preschoolers

Authors

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ABSTRACT

Introduction: Biomass fuel (BMF) usage is a major respiratory health hazard for children in developing countries. Unlike spirometry, lung oscillometry is an effort-independent pulmonary function assessment, ideal for young children.

Objectives: To evaluate the impact of cooking fuel type on the lung function of a cohort of preschool children residing in the Colombo and Kandy districts of Sri Lanka.

Methods: Following European Respiratory Society guidelines, lung oscillometry was conducted on an interim cohort of 54 preschoolers (mean age 4.15 ±0.94 years; 51.9% male; mean height 103 ±8.98 cm). Participants were categorised by their household cooking fuel type: 30 used firewood (BMF) and 24 used LP gas (non-BMF).

Results: Oscillometry measurements were highly feasible in this cohort of preschoolers; 75.3% of children were willing and able to conduct the measurement, and 89.3% of those reports were acceptable. Overall mean airway resistance (R5) was 8.58 ±1.61 cmH₂O/L/s, and airway reactance (X5) was -3.82 ±1.26 cmH₂O/L/s.

There were no significant differences between fuel groups for R5 (p=0.304) or X5 (p=0.303). Furthermore, after adjusting for height in the regression analysis, stove type remained nonsignificant across both parameters.

Conclusions: As the first Sri Lankan study to utilise lung oscillometry to evaluate the impact of BMF usage on early childhood lung function, this research provides vital preliminary regional baseline data. While this interim analysis, limited by a small sample size, found no significant association between fuel type and lung function, it successfully demonstrates oscillometry's feasibility for paediatric respiratory assessments in Sri Lanka.





ABSTRACT ID: PP 089

Title

Association Between Household Cooking Fuel Type and Respiratory Symptoms Among Preschool Children in Kandy, Sri Lanka: An Interim Analysis

Authors

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ABSTRACT

Introduction: Indoor air pollution from household fuel combustion is a major public health concern, especially in low and middle-income settings.

Objectives: This study examined the association between cooking fuel type and respiratory symptoms among children aged 2–6 years attending selected Medical Officer of Health (MOH) clinics in Kandy district.

Methods: A descriptive cross-sectional study was conducted among 130 children using a pretested interviewer-administered questionnaire. Respiratory symptoms within the past 30 days were recorded. Associations between cooking fuel type and symptoms were assessed using binomial regression analysis.

Results: Among the 130 participants, 52.3% (n=68) were female, with a mean age of 4.05 ±0.99years. 105 participants were from households mainly using LPG and 25 were from households using solid fuel. Overall, 57 children (43.8%) reported cough, 12 (9.2%) sore throat, 48 (36.9%) runny nose, and 41 (31.5%) sneezing. Seventy-six children (58.5%) had at least one respiratory symptom. Symptoms seemed more frequent among solid fuel users compared to LPG users: cough (48.0% vs 42.9%), sore throat (16.0% vs 7.6%), runny nose (48.0% vs 34.3%), and sneezing (40.0% vs 29.5%). Children exposed to solid fuel had higher odds of cough (OR=1.23, p=0.642), sore throat (OR=2.31, p=0.203), runny nose (OR=1.77, p=0.205), sneezing (OR=1.59, p=0.313), and any respiratory symptom (OR=1.66, p=0.284). However, none of these associations were statistically significant.

Conclusions: Although associations were not statistically significant, possibly due to the small sample size, respiratory symptoms were more frequent in children from solid fuel households, suggesting a possible increased risk that requires further investigation.





ABSTRACT ID: PP 090

Title

Cystic Fibrosis in Sri Lankan Children: Clinical Spectrum and Genotypic Insights from a Descriptive Cohort

Authors

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ABSTRACT

Background: Cystic fibrosis (CF) is a life-limiting disorder with marked geographic variation in clinical presentation and CFTR mutation profile. We describe the demographic, phenotypic, and genotypic characteristics of Sri Lankan children with CF.

Methods: We conducted a descriptive observational study of 35 children with confirmed CF followed at tertiary paediatric centres in Sri Lanka, diagnosed based on the clinical features, positive sweat chloride test and identification of pathogenic CFTR variants. Data were extracted from clinical records, and descriptive statistics were applied.

Results: The cohort comprised 35 children (20 males, 15 females) with median age at diagnosis of 4 years (IQR 3–8) and median current age of 11 years (IQR 5–14). Ethnic distribution included Muslim 57% (20/35), Sinhala 31% (11/35), and Tamil 11% (4/35), with consanguinity common among Muslim families. Recurrent chest infections and failure to thrive were the commonest presenting features; pseudo-Bartter syndrome led to diagnosis in 11% (4/35). Pancreatic insufficiency was observed in 71% (25/35). Bronchiectasis was diagnosed in 52%. CF-related diabetes (6%) and liver disease (6%) were uncommon. Pseudomonas aeruginosa colonization occurred in 43% (15/35). All patients had positive sweat chloride tests. CFTR genotyping, available in 23 patients, revealed 48% (11/23) were compound heterozygotes. $\Delta F508$ and the rare variant c.2738A>G, p.Tyr913Cys (Y913C) were each present in 26% (6/23). Eleven patients were eligible for CFTR modulator therapy.

Conclusion: Sri Lankan children with CF demonstrate striking phenotypic and genotypic heterogeneity, delayed diagnosis, and limited access to advanced therapies. These findings underscore the need for expanded genetic testing and access to CF-specific treatments to improve outcomes





ABSTRACT ID: PP 091

Title	Variable Clinical Spectrum and Diagnostic Challenges of Pediatric Tuberculosis at a Tertiary Referral Center in Sri Lanka
Authors	Kodippilikande Widanelage Dona Amitha Anuradha ¹ , Dhammike Rasnayake ² , Saman Iddagoda ² , Sandini Gunaratne ³ , Dhammika Vidanagama ³ , Nuwan Dissanayake ³ , Channa de Silva ³
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ABSTRACT

Introduction: Tuberculosis (TB) remains underdiagnosed in Sri Lanka. We describe the clinical spectrum and outcomes of children admitted to a tertiary referral unit with pulmonology services over four years.

Methods: This retrospective, record-based cross-sectional study included children admitted or transferred between 2019–2021 and 2023–2026. Clinical and outcome data were analysed.

Results: Thirty children were included (mean age 7.6 ± 3.2 years; M:F 17:15). Fever >1 week occurred in all prior to presentation; however, 40% (12/30) were afebrile at diagnosis. Growth faltering was present in 73% (22/30), while loss of appetite was reported in 23% (7/30). Pulmonary TB (PTB) accounted for 33% (10/30). Extrapulmonary TB (EPTB) comprised 63% (19/30): pleural 30% (9/30), lymph node 13% (4/30), bone 7% (2/30), pericardial 3% (1/30), and CNS 3% (1/30). Disseminated TB was seen in 7% (2/30). PTB frequently presented as poorly resolving pneumonia. All pleural TB cases presented as complicated pneumonia. A contact history was identified in 47% (14/30). ESR exceeded 75 mm/hr in all children and was >100 mm/hr in 69% (20/29). TST was positive in 77% of PTB and 63% of EPTB. All diagnoses of pleural TB were based on histology others were based on the positive gene Xpert of relevant samples. Three bone TB cases were initially evaluated for malignancy or osteomyelitis. All children were fully recovered.

Conclusion: EPTB is predominant and the presentations are atypical in paediatric TB. Low contact identification, negative molecular tests in pleural TB, and initial misdiagnoses underscore diagnostic challenges. Clinical suspicion and early referral are crucial to prevent delays and improve outcomes in pediatric TB.





ABSTRACT ID: PP 092

Title

Parental Stress and Associated Factors among Parents of Children with Bronchial Asthma Attending a Tertiary Care Hospital in Sri Lanka

Authors

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ABSTRACT

Introduction: Bronchial asthma is a common chronic disease in childhood requiring long-term management. Its unpredictable course places a significant psychological burden on parents, which may negatively influence asthma control and health outcomes.

Objectives: To assess parental stress and identify associated sociodemographic and asthma-related factors among parents of children with bronchial asthma attending Teaching Hospital Anuradhapura.

Methods: An analytical cross-sectional study was conducted among 319 parents of children with bronchial asthma. Data were collected using an interviewer-administered questionnaire including sociodemographic information, asthma-related factors, the Parental Stress Scale, and the Childhood Asthma Control Test. Data were analysed using SPSS version 20.

Results: Higher-than-average parental stress was observed in 49% of parents, while 45% of children had poor asthma control. Parental stress showed a moderate negative correlation with asthma control ($r = -0.41$, $p < 0.001$). Poor asthma control, sleep disturbance due to asthma, frequent hospital admissions, and low monthly income were significantly associated with higher parental stress.

Conclusions: Parental stress is common among parents of children with bronchial asthma and is influenced by both clinical and socioeconomic factors. Incorporating psychosocial assessment into routine paediatric asthma care may improve overall disease management.





ABSTRACT ID: PP 093

Title	The Inhibitory Effect and Mechanism of D-Usnic Acid on Respiratory Syncytial Virus Infection
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ABSTRACT

Introduction: Respiratory syncytial virus (RSV) is a leading cause of bronchiolitis in infants and one of the most common reasons for infant hospitalization, placing a substantial medical and economic burden globally. However, specific therapeutics for RSV infection remain limited.

Objective: To identify safer and more effective agents for RSV prevention and treatment, and to elucidate their antiviral molecular mechanisms.

Methods: We constructed recombinant RSV expressing mCherry fluorescent protein, screened D Usnic Acid via high throughput screening in HEp 2 cells, and validated its antiviral activity in vitro and in vivo using an RSV infection model. Small molecule–protein interactions were examined using biotin-avidin assay, surface plasmon resonance, and mass spectrometry-based cellular thermal shift assay. mRNA and protein levels of ABCB1, CTSS, TSPAN13 were detected by qPCR and Western blot.

Result: D Usnic Acid showed significant anti RSV activity. It did not affect viral adsorption, entry, early replication, or translation, but inhibited RSV assembly and budding. WDR11 was identified as a potential key target, acting through the Hedgehog signaling pathway to regulate GLI family transcription. GLI1 modulated the expression of ABCB1, CTSS, and TSPAN13.

Conclusion: D Usnic Acid exerts antiviral effects by targeting WDR11, which regulates the expression of ABCB1, CTSS, and TSPAN13 through the Hedgehog signaling pathway, thereby inhibiting RSV assembly and budding.





ABSTRACT ID: PP 094

Title	Hypomorphic IRAK4 Variants Uncouple Toll-like Receptor Signaling to ive Constitutive Autoinflammation via Selective Pathway Hyperactivation
Authors	Junfeng Wu ¹ , Rui Gan ¹ , Gan Sun ¹ , Ran Chen ¹ , Lang Yu ¹ , Xianze Luo ¹ , Li Wang ¹ , Qinglv Wei ¹ , Xuemei Tang ¹ , Xiaodong Zhao ¹ , Yunfei An ¹
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ABSTRACT

Introduction: Interleukin-1 receptor-associated kinase 4 (IRAK4) is a key mediator of innate immunity. While loss-of-function mutations cause immunodeficiency, specific hypomorphic variants like the recurrent D320Y are linked to autoinflammatory disease, yet their shared pathogenic mechanism remains unclear.

Objective: This study aimed to define the mechanism by which hypomorphic IRAK4 variants, including D320Y and Q29P, drive a paradoxical inflammatory phenotype.

Methods: We analyzed immune cells from three new patients carrying the heterozygous IRAK4 D320Y variant. Functional studies reconstituted the D320Y and Q29P variants in IRAK4-deficient cells to assess protein expression, cytokine production, and transcriptomic profiles. Pathway dependency was tested using kinase inhibitors targeting IRAK4, p38 MAPK, and TBK1.

Results: Patients with the D320Y variant showed systemic autoinflammation. Their immune cells, along with cells expressing either the D320Y or Q29P variant, exhibited elevated interferon signatures. Both variants reduced IRAK4 protein expression and TLR-induced TNF- α , confirming hypomorphism. Paradoxically, they enhanced constitutive and ligand-stimulated production of IL-6 and IFN- γ . Transcriptomics revealed selective hyperactivation of NF- κ B, MAPK, and IRF pathways. This gain-of-signaling depended on residual IRAK4 kinase activity and was rescued by inhibiting downstream p38 or TBK1.

Conclusion: We elucidate a shared pathogenic mechanism for hypomorphic IRAK4 variants: they uncouple TLR responses, enabling constitutive inflammation through selective pathway hyperactivation. This work defines a common disease mechanism and identifies p38 and TBK1 as potential therapeutic targets.





ABSTRACT ID: PP 095

Title	Outcomes and Case-Mix Characterization of Paediatric Inguinal Hernia Repair Using a Pragmatic Coding Method: A Seven-Year Cohort Study
Authors	Sachini Arunaratne ¹ , Mathula Hettiarachchi ¹
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ABSTRACT

Introduction: Inguinal hernia repair represents a major component of paediatric surgical workload, yet outcome reporting from resource-limited settings is often limited by incomplete case-mix characterization and inadequate follow-up. We evaluated clinical outcomes and service implications using a practical coding method in a large tertiary cohort.

Objectives: To characterize outcomes and case-mix in paediatric inguinal hernia repair. **Methods:** We conducted a retrospective cohort study of children (0–16 years) undergoing inguinal hernia repair between January 2019 and December 2025 at a high-volume tertiary paediatric centre (n = 515). Recurrent presentations were identified using asterisk notation in operative laterality records. Demographics, operative approach, recurrence, metachronous hernia, and emergency presentation were analysed.

Results: Median age at repair was 24 months, 65.6% of patients were male, and 47.6% had rightsided hernias. Fourteen patients (2.7%) presented with recurrent hernias, most managed laparoscopically (64% vs 36%, $p > 0.05$). Overall post-repair recurrence was 1.9% and was higher following laparoscopic repair (4.9% vs 1.0%, $p = 0.014$). Emergency surgery occurred in 9.5% of cases and was most frequent in infants under 12 months, with similar use of open and laparoscopic approaches. Metachronous hernia developed in 9.2% of unilateral repairs.

Conclusion: Systematic case-mix characterization using a low-cost coding method improves outcome interpretation in resource-limited settings. The opposing effects of laparoscopic repair on recurrence and metachronous hernia highlight the need for careful case selection and technical standardization. Prioritizing early infant repair and strengthening pragmatic data systems may improve surgical quality and service delivery in comparable environments.





ABSTRACT ID: PP 096

Title

Retrospective Analysis of the Impact of Different Blood Collection Methods on Results in 3,350 Pediatric Peripheral Venous Blood Specimens

Authors

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ABSTRACT

Introduction: Blood collection is crucial for disease diagnosis and treatment in hospitalized children. Compared with adults, pediatric blood collection is more challenging due to poor vascular conditions, psychological factors, and family anxiety. Whether blood collection through peripheral venous catheters is feasible remains controversial.

Objectives: To retrospectively analyze the impact of different peripheral venous blood collection methods on results and provide evidence for selecting appropriate collection methods in pediatric patients.

Methods: We retrospectively analyzed 3,350 pediatric inpatients who underwent peripheral venous blood collection at a tertiary children's hospital from January to December 2024. Basic information was collected through the nursing information management system, and blood specimen results were obtained via Limsbox laboratory management software. Among them, 1,612 cases used direct blood collector collection (1,570 qualified, 42 unqualified), and 1,738 cases used first-time incidental collection through peripheral venous catheters (1,702 qualified, 36 unqualified).

Results: The total qualification rate was 97.4% in the blood collector group (unqualified rate 2.6%) and 97.9% in the catheter group (unqualified rate 2.1%). Statistical analysis showed no significant difference between the two methods in key quality indicators including anticoagulant specimen coagulation and specimen hemolysis ($P > 0.05$).

Conclusions: First-time incidental blood collection through peripheral venous catheters does not affect the qualification rate of blood collection results. It reduces pain from repeated punctures, improves nursing efficiency, and enhances satisfaction among children and their families.





ABSTRACT ID: PP 097

Title

Non-Invasive Management of Gastrostomy Granulomas in Children Using Table Salt: Outcomes From a Retrospective Review

Authors

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ABSTRACT

Introduction: Gastrostomy-related granulation tissue formation is a frequent complication encountered in children who require long-term enteral feeding.

Objectives: To evaluate the therapeutic effectiveness of table salt as a low-cost, simple management option for peristomal granulation tissue in children.

Methods: A retrospective review was conducted on 47 children who received table salt application at the stoma clinic of the Lady Ridgeway Hospital, using the clinic database. One session was defined application of table salt for 20 minutes. The length of the granulation tissue was measured as the largest vertical diameter using a ruler.

Results: The majority of them (57.4%) were males. The mean age was 6.34 years (SD = 4.55). Percutaneous endoscopic gastrostomy tubes were present in 29.8%, and replacement tubes in 70.2%. All patients achieved complete resolution of granulation tissue without side effects. The median number of sessions required is 3 (range 1-6). A statistically significant association was observed between the initial diameter of the granulation tissue and the number of sessions required (Kruskal-Wallis H = 25.43, p < 0.000). A significant correlation was observed between the number of sessions required and the duration between the granulation tissue formation and the surgery (r=0.410, p=0.004). There was no significant association with the type of tube (p=0.741) and the type of surgery (p=0.457). The recurrence rate was 76.6%.

Conclusions: Table salt is an effective, low-cost, and safe treatment for gastrostomy-related granulation tissue in paediatric patients. Large granulation tissues require more treatment sessions. This method does not prevent the recurrence of granulation tissue.





ABSTRACT ID: PP 098

Title	Construction of a prediction model for acquired pressure injury in neurosurgery children based on machine learning
Authors	Shanshan HAN ¹ , Xiaoling Liu ¹ , Qian Zhong ¹ , Hong Qu ¹ , Jie Li ¹ , Xianlan Zheng ²
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ABSTRACT

Aim: The aim of this study was to construct a risk prediction model for intraoperative acquired pressure injury in neurosurgical patients and to verify the predictive effect of the model, with the intention of providing a reference for the prevention of IAPI in neurosurgical patients.

Methods: The clinical data of 776 children who underwent neurosurgery in a tertiary grade A children's specialized hospital in Chongqing from January to June 2023 were retrospectively collected. Variables were screened using LASSO regression, and nine machine learning algorithms were selected. The machine learning model was constructed and validated using ten-fold cross-validation and a validation set. The predictive effects of each model were compared using ROC curves, cross-validation results, and efficacy indicators. The optimal model for predicting IAPI in neurosurgical patients was constructed.

Results: The incidence of IAPI in neurosurgical patients was 7.9%. The XGBoost algorithm model had the best predictive performance, with sensitivity, specificity, accuracy of 0.8889, 0.4813, 0.126, respectively. The clinical decision curve showed that the predicted probability of IAPI occurrence by this model was consistent with the actual occurrence probability. It was found that clinical indicators such as surgical blood loss, surgical position, patient age, operation duration, anesthesia duration, and the use of external force were identified as key risk factors.

Conclusion: The neurosurgical patient prediction model constructed in this study has certain predictive efficacy and can provide a scientific basis for clinical nurses to identify high-risk neurosurgical patients with IAPI and take personalized preventive measures in an early stage.





ABSTRACT ID: PP 099

Title	Association between digital device usage and cognitive development among primary school children in grades three and four in Sri Jayewardenepura Educational Zone
Authors	Sanuri Harindi Elvitigala ¹ , T.S.S. Dissanayake ¹ , M.T. Diwakara ¹ , S.K. Edirisinghe ¹ , W. Hathagoda ²
Affiliations	¹ Faculty of Medicine, University of Colombo, Sri Lanka ² Department of Pediatrics, Faculty of Medicine, University of Colombo, Sri Lanka

ABSTRACT

Introduction: The incorporation of digital devices into academic activities during COVID-19 pandemic increased children's screen time. Although previous studies suggest an association between early screen exposure and cognitive performance, local evidence remains limited.

Objectives: To determine the association between digital device usage and cognitive development among primary school children in grades three and four in the Sri Jayewardenepura Educational Zone.

Methods: A cross-sectional study was conducted in cluster-selected schools. A self-administered questionnaire collected socio-demographics and digital device usage data. Cognitive development was assessed using a culturally adapted tool with experts face and content validity.

Results: A total of 197 grades 3 and 4 students participated. Mean digital device usage was 1.18 hours (SD = 0.67) on weekdays and 1.46 hours (SD = 0.95) on weekends. The mean cognitive score was 55.80 (SD = 10.52). No significant association was found between device usage and cognitive scores on weekdays ($\chi^2 = 0.293$, $p = 0.58$) or weekends ($\chi^2 = 0.543$, $p = 0.46$). Significant associations were observed between weekday usage and primary caretaker ($\chi^2 = 4.688$, $p = 0.030$), weekend usage and screen-free playtime ($\chi^2 = 11.875$, $p = 0.001$), and household income with weekend usage ($\chi^2 = 5.478$, $p = 0.019$) suggesting that caregiver presence, screen-free playtime, and income influence usage patterns.

Conclusion: Average device use remained within the recommended limit of <2 hours per day, with higher use on weekends. Primary caretaker, screen-free playtime and household income influenced device usage. Interventions should guide families towards balanced device use.





ABSTRACT ID: PP 100

Title	Weight and shape dissatisfaction and its association with perceived stress level of the adolescent schoolchildren in Galle district, Sri Lanka
Authors	Ponarasa Arachchige Ruwanthi Ishara Kulathunga ¹ , Pinnaduwege Vijitha De Silva ¹ , Champa Jayalakshmie Wijesinghe ¹
Affiliations	¹ Department of Community Medicine, Faculty of Medicine, University of Ruhuna, Sri Lanka

ABSTRACT

Introduction: Weight and shape dissatisfaction is an important determinant of adolescent mental health and has been increasingly linked to psychological stress. There is a paucity of research examining this relationship among adolescents in Sri Lanka.

Objectives: This study was conducted to assess weight and shape dissatisfaction and its association with perceived stress level of the adolescent schoolchildren in Galle district, Sri Lanka.

Methods: A school based, cross-sectional study was conducted among 876 adolescent schoolchildren aged 16-19 years in Galle district selected using cluster sampling technique. Weight and shape dissatisfaction was assessed using validated, Sinhala version of Eating Disorders Examination Questionnaire 6.0. Perceived stress level was assessed using validated, Sinhala version of Perceived Stress Scale. Data were analyzed using Statistical Package of Social Sciences software, version 30 using descriptive statistics and Chi square test.

Results: Mean age (SD) of the adolescents was 16.27 (0.58) years. Weight dissatisfaction was reported among 28.7% of the adolescents while 27.8% reported shape dissatisfaction. Among them, 19.2% had moderate to marked weight dissatisfaction and 18.6% had moderate to marked shape dissatisfaction. Low perceived stress was reported among 14.6% while 80% had moderate stress and 5.4% had high perceived stress. Both weight and shape dissatisfaction was significantly associated with high stress among adolescents ($p < 0.05$).

Conclusion: Weight and shape dissatisfaction was common among adolescent schoolchildren and was significantly associated with higher perceived stress levels. These findings highlight the importance of early identification of body image concerns and implementation of school-based interventions to promote adolescent mental health and wellbeing.





ABSTRACT ID: PP 101

Title	Assessment of Financial, Physical and Psychosocial burden among parents and siblings of paediatric inpatients in a tertiary care hospital
Authors	Lakindu Chirantha Weerabhahu ¹ , Thelesinghe Mudalige Ruwanthi Perera ¹ , Abirame Sriskandarajah ¹ , Sivakumar Mirshan ¹
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ABSTRACT

Background: Hospitalization is a distressing experience, which can negatively impact the quality of life of the patient's family members. Hospitalization may invariably cause an additional financial burden as well.

Objectives: Assessment of financial, psychosocial, and physical burden among parents and siblings of paediatric inpatients at Colombo South Teaching Hospital (CSTH).

Methodology: A descriptive cross-sectional study was conducted using a structured interviewer administered questionnaire with standard assessment scores. 200 participants were recruited using consecutive sampling between December 2025 to February 2026 from the parents of inpatients at CSTH. Data analysis was done by SPSS version 25.

Results: Only 42% of respondents were employed, of whom 51.5% had unpaid leave. Mean expenses during the past 24-hours was LKR 1778.38 (SD = LKR 1502.96). 79.5% of parents felt emotionally drained and 68% experienced anxiety or sadness. 62% had overall poor sleep and 40.5% reported having less than 2 hours of sleep. Fatigue was reported in 47% and back pain in 32.5%. 65% of patients had at least one sibling, 87.8% of them were under the care of the other parent or grandparents. 15.02% of siblings were reported to have missed school.

Conclusion: Most parents of hospitalized children experience physical and psychological exertion during their child's hospitalization. Despite free healthcare, families face an added financial burden from transport costs and purchase of meals. Siblings are considerably less affected than the parents, but needs further studies.





ABSTRACT ID: PP 102

Title	Associations between adverse childhood experiences and selected health risk behaviors among 16–17-year-old school-going adolescents in Vavuniya District, Sri Lanka
Authors	Visvalingam Arunath ¹ , Uthayakumar Purushothaman ¹ , Sachith Mettananda ²
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ABSTRACT

Introduction: Adverse Childhood Experiences (ACEs) are traumatic events, including abuse and household dysfunction, experienced by children and adolescents. ACEs trigger stress, alter brain development and lead to long-term health problems among adolescents.

Objectives: To describe the associations between ACEs and health risk behaviours among 16- 17-year-old school-going adolescents in Vavuniya district, Sri Lanka.

Methods: A cross-sectional study was conducted among 16-17-year-old school-going adolescents in Vavuniya district, Sri Lanka, using a pre-tested self-administered questionnaire. ACE questions were adapted from 17-item Paediatric ACEs Screening and Related Life-events Screener which covered ACEs including exposure to discrimination, food insecurity, housing instability, community violence, caregiver illness/disability, and separation from caregivers. Ethical approval was obtained and the data were analysed using the chi-square test.

Results: A total of 461 adolescents were recruited. The majority were Tamil (73.1%), and 79.6% reported having both parents as caregivers. Over half (57%) had experienced at least one ACE. Reported prevalence of risk behaviours were; smoking-4.6%, alcohol consumption-5.6%, and substance use-2.6%. 10% reported being bullied at school, 23.4% experienced cognitive difficulties, and 28.6% reported depressed mood. ACEs were significantly higher among children without both parents ($p<0.05$) and from lower-income households ($p<0.05$). ACEs were significantly associated with adolescent smoking ($p=0.002$), alcohol use ($p=0.001$), bullying ($p<0.001$), cognitive difficulties ($p<0.001$), and depressed mood ($p<0.001$).

Conclusions: ACEs are highly prevalent in the Vavuniya District and are significantly associated with lower socioeconomic status and risky health behaviours among adolescents.





ABSTRACT ID: PP 103

Title	Out-of-Pocket Expenditure and Caregiver Burden among Children with Chronic Medical Illnesses in Sri Lanka`
Authors	Muhandiram Ralalage Darshika Rathnamali Muhandiram ¹ , Kularathne SD ¹ , Pathirana Wasanga ¹
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ABSTRACT

Background: Caring for children with chronic medical illnesses (CMIs) can resulting in substantial out-of-pocket expenditure (OOPE) which can contributes to high caregiver burden(CB)

Objectives: To describe OOPE incurred by caregivers of children with CMIs and to assess its association with caregiver burden.

Methods: A cross-sectional study was conducted among 242 caregivers of children with CMIs (renal disease, uncontrolled epilepsy, thalassemia, diabetes, and asthma).attending pediatric units of three tertiary care hospitals in Kandy District, Sri Lanka. OOPE was assessed per hospital admission or clinic visit, including direct and indirect costs. CB was measured using Caregiver Burden Scale (CBS), with mean score >2 indicating higher CB. Associations between OOPE and CB were analyzed using univariate and multivariate logistic regression

Results: Indirect costs exceeded direct medical costs with a median total OOPE of LKR 6000 per admission or clinic visit. More than half of caregivers (51.2%) experienced high OOPE. Overall, 33.5% of caregivers reported higher CB. OOPE was significantly associated with CB in univariate analysis ($p=0.002$). However, after adjustment for confounders, OOPE did not remain an independent predictor of CB. Longer hospital stays and having another child with a chronic illness (were independently associated with higher CB.

Conclusions: Caregivers of children with CMIs incur substantial OOPE, mainly driven by indirect costs. Although OOPE was not an independent predictor of caregiver burden after adjustment, its high prevalence highlights the need for financial risk-protection strategies for families managing childhood chronic illnesses.





ABSTRACT ID: PP 104

Title

Impact of Education and Socio-Demographic Factors on Child Rearing Practices Among Preschool Parents in The Central Province of Sri Lanka

Authors

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ABSTRACT

Child-rearing practices are essential for early childhood development and are shaped by parental educational and socio-demographic factors.

This study examined prevailing child-rearing practices and assessed the influence of parental education, income, and living environment among parents of preschool children in the Central Province of Sri Lanka.

A cross-sectional survey of 423 preschool parents was conducted using stratified random sampling. Ethical approval and informed consent were obtained. Descriptive statistics profiled socio-demographic characteristics and parenting behaviours. Associations were tested using Chi-square with Cramer's V, Spearman correlation and Mann-Whitney U tests. $p < 0.05$ was considered statistically significant.

Most parents reported high engagement in development-promoting activities, particularly teaching/learning interactions (83.6% often/daily) and conversational engagement (79.8% often/daily). Supportive and communicative parenting was common, with 85.1% of parents reporting no physical discipline. Disciplinary approaches were multimodal, with timeout (82.7%) and removal of privileges (79.0%) frequently used. Higher maternal education showed a weak but significant positive correlation with supportive parenting behaviours ($\chi^2 = 0.089$, $p = 0.034$). Lower maternal education was associated with verbal disciplinary responses (χ^2 $p = 0.004$) and giving in to tantrums (χ^2 $p = 0.037$). Lower household income was associated with giving in to tantrums (χ^2 $p = 0.008$) and ignoring misbehaviour (χ^2 $p = 0.015$). Urban parents had higher engagement than rural parents ($p = 0.004$), while supportive behaviour scores were similar across both settings ($p = 0.193$).

Parenting practices were generally supportive, but socio-demographic gradients persisted. Context-specific parenting support tailored to maternal education, household resources and living environment may help to strengthen early developmental support.





ABSTRACT ID: PP 105

Title

Impact of Parental Screen Use and Parent–Child Interactions on Child Screen Time Among Preschool Children In Central Province, Sri Lanka

Authors

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ABSTRACT

Excessive screen exposure is a growing concern in early childhood, affecting parent-child relationships and children's behavior. This study examines how parent-child interactions and parental screen use affect preschoolers' screen time, and compares screen time between urban and rural children in Central Province, Sri Lanka. A cross sectional survey was conducted among 423 parents from 15 randomly selected preschools in Central province. Data were collected using a parent reported questionnaire on parental screen use, parent-child interactions and children's screen time. Using census data related to preschools, urban and rural classification was done. Data were analyzed using SPSS version.26 with Mann–Whitney U test tests, Spearman's rank correlations analysis. The mean daily screen time among children was 1.89 ± 1.35 hours. Urban children ($n = 228$) had significantly higher screen time (2.28 h) than rural children ($n=195, 1.38$ h) ($p < 0.05$). Children's screen time showed significant positive correlations with parental device use during meals ($r = 0.112$, $p = 0.022$), interactive play ($r = 0.172$, $p < 0.001$), educational use ($r = 0.189$, $p < 0.001$), travelling ($r = 0.182$, $p < 0.001$), and bedtime routines ($r = 0.126$, $p = 0.010$). Parent child interactions, including teaching/learning ($r = -0.119$, $p=0.014$) storytelling ($r = -0.99$, $p=0.042$) and outdoor play ($r = -0.96$, $p=0.050$), were negatively correlated with children's screen time. Parental screen use and interaction activities influence preschoolers' screen exposure. Urban children showing higher screen time than rural children. Improving parent-child interactions and parental awareness can help to reduce excessive screen time.





ABSTRACT ID: PP 106

Title

Perceptions And Practices of Parents in Instilling Discipline Among Preschool Children in The Central Province of Sri Lanka

Authors

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ABSTRACT

Background: Parental discipline strategies during the preschool years are important in shaping children's long-term behavioral and socio-emotional development.

Objectives: This study examined parents' perceptions and practices regarding discipline among preschool children in the Central Province of Sri Lanka, focusing on the influence of demographic and geographic factors.

Methods: A cross-sectional quantitative study was conducted among 423 parents of preschool-aged children using a structured questionnaire assessing six core discipline practices and parental attitudes. Descriptive statistics were used to summarize parental discipline practices. Chi-square tests and Spearman correlation analyses were used to determine significant associations between parental education, employment status, living environment, administrative district, and reported discipline practices.

Results: Talking or explaining behavior was the most common discipline strategy (92.9%). Reward-based methods (22.7%), time-out (17.3%), and removal of privileges (21.0%) were less frequently used. Verbal aggression was reported by 47.5% of parents. Physical punishment was reported frequently by 8.1%, with a higher proportion reporting occasional use. Distinct parenting styles were uncommon, with most parents demonstrating mixed approaches. Higher maternal education and occupational status were associated with greater use of positive discipline, although this was not statistically significant ($p=0.77$). Verbal aggression varied significantly across districts, with higher levels in Kandy ($p=0.013$), whereas physical punishment did not differ significantly ($p=0.74$).

Conclusion: Parental discipline practices combined positive and harsh strategies, with frequent verbal aggression and limited use of structured approaches. District level variation highlights the need for targeted interventions promoting positive discipline.





ABSTRACT ID: PP 107

Title	Economic Impact of Advanced Practice Nurses in Pediatric Respiratory Tract Infection Outpatient Services: A Prospective Observal Study Theme: Advanced Practice Nurse Service Models & Pediatric Healthcare Costs
Authors	Shuo Ma ¹ , Lulu Sun ¹ , Qiaohuo Liao ¹ , Shiyuan Zhang ¹ , Guling Yao ¹ , Xueqing Hu ¹
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ABSTRACT

This prospective observational study evaluated the economic impact and clinical feasibility of Advanced Practice Nurses (APNs) in pediatric respiratory tract infection (RTI) outpatient care. From September 2024 to June 2025, 70 children with RTIs were assigned to three groups: physician-led care (n=23), APN-physician collaborative care (n=23), and APN-independent care (n=24). APNs provided standardized assessment, non-pharmacological interventions (e.g., nasal irrigation, pediatric tuina), health education, and follow-up without prescribing Presenting Authority. The APN-independent group demonstrated significantly lower total cost per visit (¥351.7 ± 60.4 vs. ¥452.3 ± 86.7, P<0.001), driven by reduced medication and laboratory expenses, while nonpharmacological treatment fees increased. No significant differences were observed in 30-day revisit rates, hospitalization, or symptom resolution time. APN-independent care also resulted in shorter consultation time (28.5 min) and higher parental satisfaction (95.8%), with 87.5% of caregivers willing to pay extra. APN-led outpatient services for mild pediatric RTIs can reduce costs, improve efficiency, and enhance patient experience without compromising clinical safety, offering a viable model for pediatric healthcare optimization in China.





ABSTRACT ID: PP 108

Title	Assessment of Out-Of-Pocket Expenditure and Its Determinants in Pediatric Admissions At a Tertiary Government Hospital in the Philippines: A Descriptive Study
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Affiliations	¹ Philippine General Hospital, Philippines

ABSTRACT

Introduction: Out-of-pocket expenditure is a marker of health care system effectiveness to protect the population from catastrophic health expenditure. Families caring for children with chronic conditions are vulnerable to financial burden.

Objectives: To correlate the amount of direct out-of-pocket expenses incurred during admission with demographic, clinical and socio-economic factors in a tertiary government hospital in the Philippines

Methodology: This is a cross-sectional study that recruited 54 pediatric in-patients at the General Pediatric wards during August 2025. A questionnaire & record form was used to record out-of-pocket expenses incurred. Age, Sex, Educational Attainment, Occupation, Socioeconomic Status, Residence and Hospital Length of Stay was correlated with Total Out-of-Pocket Expenditure during admission.

Results & Discussion: Out-of-pocket expenditure causes financial burden even when admitted in government-funded hospitals. A breakdown of these out-of-pocket expenditures are varied, with the majority being used for food (59.15%), medication (14.28%) and transportation (11.64%). Thus, inadequate food provisions, consistent drug shortages in hospitals, and inequitable access to health services may contribute to an increase in out-of-pocket expenditures. Amongst all the variables, hospital length of stay is statistically significant, wherein an additional 1 day increase in hospital stay will increase out-of-pocket expenditure by PhP 207.88, other variables kept constant. ($p < 0.001$)

Conclusion: Despite existing national health policies, admitted patients continue to incur out-of-pocket expenses spent on food, medication, transportation, diagnostic tests, supplies and medical devices. Addressing high out-of-pocket expenditure while admitted will require multisectoral collaboration and multidisciplinary interventions across health professionals focused towards decreasing hospital length of stay.





ABSTRACT ID: PP 109

Title	Clinical ile and Outcomes of Acute Poisoning in Children: Three-year Experience from a Secondary Care Hospital in Sri Lanka
Authors	Vijayakanth Vijayakumar ¹ , Vijayakumary Thadchanamoorthy ² , Kavinda Dayasiri ³
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ABSTRACT

Background: Acute poisoning remains a leading cause of emergency hospital admissions among children. Its patterns and trends are shaped by the availability of toxic agents and by prevailing social, cultural, and economic determinants.

Methods: In this cross-sectional study, all paediatric acute poisoning admissions at Base Hospital Valaichenai from July 2022 to June 2025 were reviewed. Data were collected using a standardized checklist, which was refined following a five-case pilot study, to obtain information on demographics, poisoning agents, and clinical outcomes. Administrative approval was obtained to access patient records. Data were analyzed using SPSS version 22.

Results: A total of 129 children were admitted with acute poisoning during the 36-month study period. The majority were boys (63.5%) and children aged 1–5 years (72.8%). Most poisoning events were accidental, with nine cases (6.9%) of deliberate poisoning observed among adolescents. The most common poisoning agents were pharmaceuticals (34.8%), household chemicals (34.1%), and plants (18.6%); no pesticide-related poisoning was reported. The most frequently identified individual poisons included kerosene oil (11.6%), paracetamol (8.5%), and lucky money plant exposure (7.7%). Three children (3.3%) required referral to higher-level care, while the majority recovered with observation alone. No mortality was reported.

Conclusion: The study trends differed from previous Sri Lankan reports, with household and pharmaceutical agents more common than plant poisons. Outcomes were generally good; however, caregiver education and stricter control of toxic substances remain essential for prevention.





ABSTRACT ID: PP 110

Title	Assessment of knowledge in caregivers on practices in temperature measurement, and fever management in children
Authors	W.M.D.M.Peiris ¹ , G.N.De Silva ² , M.N.A.Peiris ²
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ABSTRACT

Introduction: Accurate fever assessment depends on correct temperature measurement, yet many caregivers rely on touch and have uncertainty about thermometer use and antipyretic dosing.

Objectives: To assess caregivers' practices and knowledge on temperature measurement and fever management, and to provide brief education on correct thermometer use and safe paracetamol dosing.

Methods: A cross-sectional clinical audit was conducted at the Mother and Child Health Unit, Teaching Hospital Kalutara (wards, OPD and clinics) from 1st April to 31st May 2024. Parents/caregivers completed a self-administered questionnaire. Education was provided after completion. Institutional permission was obtained.

Results: We included 1,000 caregivers (inward 405, clinics 220, OPD 375). Only 35% used a thermometer at home; 12% owned one but did not use it due to lack of knowledge, and 64% relied on tactile assessment. Correct thermometer technique was known by 25%; common gaps included reading interpretation, required placement time and need for repeat readings. Knowledge and use were lower among caregivers educated below Ordinary Level and were significantly associated with economic status ($p < 0.01$). For fever management, 794 (79%) used paracetamol at home. Among users, 85% calculated the dose by weight; 19% estimated without calculation. Dosing intervals were 6-hourly in 65% and 4-hourly in 8%. Ten per cent sought medical advice at first detection of fever.

Conclusions: Major gaps exist in caregiver knowledge and practices on temperature measurement and home fever management. Targeted caregiver education, especially for lower educational and socioeconomic groups, may improve safe antipyretic use and reduce unnecessary healthcare visits.





ABSTRACT ID: PP 111

Title	Evaluation of Paediatric Early Warning Charts (PEWS) Utilisation and its Impact on Deteriorating Paediatric Patients in the Emergency Department
Authors	Shamith Dilshan Jayasekara ¹ , W.M.G.K Wickramasingha ¹ , J C Ranasinghe ¹
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ABSTRACT

Abstract: This Audit was initiated to assess the current use of the Paediatric Early Warning Scores (PEWS) and its effectiveness in identifying at-risk paediatric patients within the Accident and Emergency department (A&E) of Sirimavo Bandaranayaka Specialized Children's Hospital (SBSCH) Peradeniya.

Objectives and Methods: To evaluate adherence to established PEWS protocols while ensuring correct PEWS calculation, prompt evaluation of charts, timely intervention and improve patient outcomes.

Data collected from category-2 admissions to the A&E over 3 months with emphasis on .Patient demographics, Presenting complaint, PEWS initiation status, PEW Scores, timing of assessment and intervention, type of intervention.

Results: Twenty which represented the entire audit population A substantial 35% 7/20 of eligiblepatients did not have a PEWS chart initiated PEWS Score Accuracy 76.9%, only 10 out of 13 completed. Average Delay from Presentation to PEWS Assessment was approximately 24 minutes (0 -112). Average Delay of Assessment to Intervention 24 minutes (5-100) Out of the 5 patients where PEWS was initiated 4 subsequently deteriorated. 3 out of 7 (43%) patients had clinical deterioration; PEWS not initiated. 2 out of 4 (50%) of them required intubation and ventilation.

Conclusion: This audit highlights significant deficiencies in the current practice of PEWS chartMost critically, low compliance rate for PEWS initiation directly translates into missed opportunities for early identification of deteriorating paediatric patients.





ABSTRACT ID: PP 112

Title	Improving Timeliness of Nebulisation Therapy in Paediatric Inpatients: A Before-and-After Clinical Audit of a Bedside Nebulisation Schedule Display Board
Authors	Fathima Rifdha Mohamed Rhysa ¹ , Naduni Peththanayake ¹ , Miss. G W K S Thirvadini ² , Gihan Samarasekara ² , Sharmy Hassan ¹ , Kasun Jayasundara ¹
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ABSTRACT

Introduction: Timely administration of nebulised therapy is essential for the effective management of paediatric respiratory conditions associated with bronchospasm, such as asthma; however, delays are common in high-workload ward settings. This audit aimed to address gaps in nebulisation timeliness through a simple bedside visual intervention.

Objective: To evaluate whether introducing a bedside nebulisation schedule display board improves adherence to prescribed nebulisation schedules among paediatric inpatients.

Methods: A before-and-after quality improvement audit using Plan–Do–Study–Act (PDSA) methodology was conducted in professorial paediatric wards at the Maternity and Children Hospital, Kalutara, Sri Lanka. Children receiving regular nebulisation therapy were included; Pro- Ra-Nata (PRN) prescriptions and intensive care patients were excluded. Timely administration was defined as delivery within ± 10 minutes of the scheduled time. Baseline data were collected over 7 days (114 nebulisation events). A laminated bedside nebulisation schedule board displaying medication details and the next scheduled dose was implemented with staff briefing and caregiver education. Post-intervention data were collected over a further 7 days (97 events).

Results: On-time nebulisation improved from 57.8% pre-intervention to 80% post-intervention. Mean delay decreased from 40 to 20 minutes. The intervention enhanced staff awareness, accountability, and caregiver engagement, reducing reliance on verbal reminders.

Conclusion: A low-cost bedside visual reminder significantly improved nebulisation timeliness and workflow efficiency. This sustainable, scalable strategy has potential for wider implementation in resource-limited paediatric settings and for other time-sensitive therapies.





ABSTRACT ID: PP 113

Title	A Clinical Audit on BCG Vaccination in a Secondary Care Hospital In Sri Lanka
Authors	Jagath Ranasinghe ¹ , S S Kasturiarachchi ² , M S Ediriweera ² , K G N M C K Nawarathna ² , K A A M Chandrasena ² , A M N S Kumara ² , S P Abeyesundara ³
Affiliations	¹ Sirimavo Bandaranayake Specialized Children's Hospital, Sri Lanka ² DGH Nawalapitiya, Sri Lanka ³ Department of Statistics and Computer Science, University of Peradeniya, Sri Lanka

ABSTRACT

Introduction: Tuberculosis (TB) a preventable disease caused by Mycobacterium tuberculosis, world's leading cause of death from a single infection, while 45% of new cases occurring in the South-East Asia. To prevent TB routine Bacille Calmette-Guérin (BCG) vaccine is given to all newborns.

Objectives and Methods: To calculate the rates of adherence to the guideline in neonates born in DGH Nawalapitiya over three months duration.

Results: Among 149, mean gestational age 37.46 (SD +/- 3.45). weeks of POA. Mean birth weight 2728.4 g (SD = 422.5 g). Majority were term (>37 weeks, 83.9%). 134 (89.33%) received BCG within 24 hours of birth, 16 (10.67%) did not, of them 15 (93.75%) were vaccinated before discharge, one (6.25%) did not, as he received IVIG. BCG one each day 3, 10, 24, Two each on day 2, 5, 9, three on day 6, four on day 8.

BCG coverage was slightly higher among term infants (91.2%). Of the 40 infants weighing 1.5–2.5 kg, 87.5% received BCG before discharge, while among those weighing >2.5 kg, 90.0% vaccinated. There was no association of delay related to birth weight or POA. Reason for delay in majority (15) were, antibiotic treatment (80%), while 3 (20%) were not. Most common combinations were Gentamycin with C Penicillin (58.33%) and C Penicillin with Cefotaxime 33.33% and Meropenem (8.33%).

Conclusion: This indicates that although a small proportion of babies experienced delayed vaccination beyond 24 hours, nearly all of them were subsequently immunized before leaving the hospital indicating 100% adherence to current guideline.





ABSTRACT ID: PP 114

Title	Nutritional status assessment and management in children with cerebral palsy: Are we adhering to NICE guidelines?
Authors	Arshia Munir ¹
Affiliations	¹ Khyber Teaching Hospital, Pakistan

ABSTRACT

Malnutrition is often linked to stunted growth, poor peripheral circulation, delayed wound healing, heightened spasticity, and increased irritability. The latest NICE guidelines recommend regular assessments of nutritional status in children with cerebral palsy (CP) to ensure proper management and care. Most scientific literature on nutrition in children with neurological impairment has focused on those with Cerebral Palsy (CP), where malnutrition has been reported in 46%–90% of cases.

Aim: (as per the NICE guidelines), Whether Children with CP seen in a tertiary care children ward are having regular reviews of their nutritional status.

Methodology: Retrospective Case notes review. Tools of study: An observational checklist based on a guideline [1] developed by the investigators in order to assess the nutritional status and intervention for children with cerebral palsy admitted at Khyber Teaching Hospital from 1st of October to 30th of December 2024. Data Analysis: was done using SPSS. Sample selection criteria: All cerebral palsy children admitted to Paeds ward KTH. Acceptable Exceptions criteria: Severely ill and comatose cerebral palsy children. Sample size: Average sample size is 12 based on Total no. of admissions in these 3 months are 1158 and 33 patients with CP admitted. audit standard: Cerebral palsy in under 25s: assessment and management NICE guideline .

Results: A total of 14 patients were included in the study, with an equal distribution of males and females (50% each). areas for improvement, recommendations and reaudit done.





ABSTRACT ID: PP 115

Title	A Clinical Audit on Demographic Characteristics and Complications Associated With Delayed Establishment of Breastfeeding in Neonates Re-admitted at DGH Ampara
Authors	Sashna Basheer ¹ , Nimasha Wimalaguna ¹ , Dhananjani Lakmali ¹ , Sanduni Abeywickrama ¹ , Udyogi De Zoysa ¹ , Rashmika Navod ¹ , Chamli Weerasekara ¹
Affiliations	¹ DGH Ampara, Sri Lanka

ABSTRACT

Introduction: Breastfeeding is essential for rapid brain growth & development. Early initiation of breastfeeding within an hour is a preventable cause associated with reduced neonatal morbidity and mortality. (WHO, 2024)

Objectives: To evaluate the demographic characteristics and complications associated with lactation failure among neonates re-admitted to the lactation unit at DGH Ampara.

Methodology: A retrospective clinical audit was conducted on all 72 neonates re-admitted to the Lactation Management Unit at DGH Ampara from October 2025 to January 2026 with ethical approval. Data were collected using a structured audit tool for a descriptive study.

Results: No mothers were below 18 years; 11% were above 35 years. 44% were primiparous. 20% had Pregnancy-related complications, 8% had chronic medical illnesses. 61% neonates presented within the first week of life. Neonates; 53.5% female and 46.5% male. 79% Term births; 43% Normal vaginal deliveries, while 54% were caesarean sections. Low birth weight (<2.5 kg) in 13%. On admission, a weight loss of >10% seen in 26%. 85% were exclusively breastfed, 15% mixed or formula fed. 68% were icteric, where 44% required phototherapy. Poor sucking (72%), irritability (19%), reduced urine output (11%), fever (10%), drowsiness (4%), sodium imbalance (17%), and infections requiring treatment (33%) were observed. 88% recovered, while 13% required NICU admission. At discharge, 90% were exclusively breastfed. On discharge, weight gain <10% in 92% and >10% in 8% were observed.

Conclusion: Gaps identified in early breastfeeding assessment, evaluation on discharge, parental education, and early postnatal follow-up. A structured breastfeeding support and early community follow-up is recommended, followed by a re-audit to complete the audit cycle.





ABSTRACT ID: PP 116

Title	Clinical Audit of Antibiotic Use in a Paediatric Inpatient Unit at a Tertiary Care Hospital in Sri Lanka
Authors	Sayanthan Shanmugam ¹ , Srisaravanapavananthan Namasivayam ¹
Affiliations	¹ Teaching Hospital Jaffna, Jaffna, Sri Lanka.

ABSTRACT

Introduction: Antimicrobial resistance (AMR) is a major global health concern. The World Health Organization estimates that (AMR) caused 1.27 million deaths in 2019. Rational antibiotic prescribing in paediatrics is essential to reduce resistance, and healthcare costs. This audit evaluated antibiotic use and documentation in a tertiary paediatric inpatient unit in Sri Lanka.

Objectives: To assess the appropriateness of antibiotic prescribing, adherence to guidelines, compliance with WHO AWaRe classification, and quality of documentation.

Methods: A retrospective audit was conducted at Teaching Hospital Jaffna, from 1st February to 31st March 2025. Records of 102 children aged 1 month–14 years who received at least one systemic antibiotic were reviewed. Data on indications, antibiotic choice, dosing (BNF), route, AWaRe classification, and documentation practices were analyzed.

Results: Among 102 patients with 120 prescriptions, 52.9% were male and 47.1% were female. 49% were ≤3 years. Lower respiratory tract infections were most common indication (42.2%). Access antibiotics comprised 54.2% and Watch antibiotics 45.8%, exceeding WHO Watch threshold (<40%). No Reserve antibiotics were used. Broad-spectrum agents were prescribed in 90.2% of cases. IV antibiotics comprised 37.5% of prescriptions. Correct dosing was observed in 76.7% and 23.3% had dosing errors. Generic prescribing was 100%. Documentation deficiencies were significant, only 20.6% clearly recorded indications and culture timing.

Conclusions: While generic prescribing and short-course IV therapy were satisfactory, excessive Watch and broad-spectrum use and poor documentation highlight areas for improvement in antimicrobial stewardship.





ABSTRACT ID: PP 117

Title	Paracetamol Use in Pre-Admission Management of Febrile Children: A Clinical Audit from a Tertiary Care Hospital in Sri Lanka
Authors	Andadola Muthumudalige Sampath Udayanga Andadola ¹ , Upul Premachandra ² , Anuradhika Udayangani ² , Kasuni Amodika ² , Hasini Perera ² , Lahiru Rajitha ²
Affiliations	¹ Registrar in Family Medicine, Sri Lanka ² Ministry of Health, Sri Lanka

ABSTRACT

Introduction: Fever is the most common symptom encountered in paediatric practice and a leading cause of hospital presentation in Sri Lanka. Paracetamol, an over-the-counter medication, is widely used by caregivers as the first-line antipyretic. However, inappropriate dosing remains a concern, with underdosing leading to inadequate symptom control and overdosing posing a risk of hepatotoxicity.

Objectives: To evaluate pre-admission paracetamol use, dosing accuracy and the influence of healthcare consultation, among febrile children admitted to a tertiary paediatric ward in Sri Lanka.

Methods: A cross-sectional clinical audit using bead head ticket was conducted over five months at the paediatric ward (26B) of Ratnapura Teaching Hospital. Children aged 6 months to <14 years presenting with fever were included (n=159). Paracetamol doses were classified as appropriate (10–15 mg/kg), underdose (<10 mg/kg), or overdose (>15 mg/kg). Associations were assessed using chi-square tests.

Results: Paracetamol was administered pre-admission in 86.2% (n=137). Among those who received paracetamol, 84.7% were appropriately dosed, while 9.5% were underdosed and 5.1% overdosed. Overall, 13.8% (n=22) received no antipyretic. Children with medical consultation were significantly more likely to receive paracetamol compared to those without consultation (94.2% vs. 76.7%; $\chi^2=8.70$, $p=0.003$). However, dosing accuracy did not differ significantly by consultation status ($p=0.234$), with errors persisting in both groups.

Conclusions: While medical consultation improves paracetamol use, it does not ensure accurate dosing. This highlights a critical gap in weight-based prescribing and caregiver instruction. Interventions should include standardized dosing guides, strengthened prescriber education, and clear communication of weight-based dosing at every clinical encounter.





ABSTRACT ID: PP 118

Title	Growth Faltering in Under-Fives: Unmasking Dual Drivers in a One-Year Clinical Audit from a Standalone Paediatric Outpatient Clinic in Southern India
Authors	Rahul Vantaku ¹
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ABSTRACT

Introduction: The global burden of child undernutrition is widely documented; standalone outpatient paediatric clinics, which reflect real-world clinical experience, remain significantly underreported. In Southern India, undernutrition is conventionally attributed to economic deprivation; however, parenting-linked feeding difficulties in financially stable households represent an equally significant yet poorly recognised contributor in outpatient settings.

Objectives: To assess the prevalence of stunting and underweight among children aged 6 months to 5 years, and to determine the dual contributory drivers, socioeconomic deprivation and parenting-linked feeding difficulties, alongside existing counselling gaps in a standalone paediatric outpatient setting in Southern India.

Methods: A retrospective clinical audit was conducted over 12 months at Naari Advanced Child Care Center. A total of 480 children aged 6 months to 5 years were included. Anthropometric measurements were plotted against the WHO Child Growth Standards. Clinical observations were reviewed to identify contributory factors, and counselling gaps were documented at each visit.

Results: Of 480 children audited, underweight was identified in 55% (n=264) and stunting in 20% (n=96). Two distinct driver profiles emerged; economically deprived households demonstrated food insecurity and poor dietary diversity, while financially stable households presented with maladaptive feeding behaviours, including screen-feeding, pampering, and reward-based negotiation. Structured feeding behaviour counselling was inconsistently documented across visits, reflecting a significant counselling gap in routine outpatient practice.

Conclusions: This audit reveals parenting-linked feeding behaviours contributing to growth faltering over economic deprivation alone, yet remain inadequately addressed. Tailored counselling alongside nutritional access is essential for effective growth promotion in standalone paediatric outpatient settings.





ABSTRACT ID: PP 119

Title	Assessment of Compliance with Hand Washing and Hand Rub Use Among Healthcare Workers in Pediatric ICU
Authors	Kaluhath Gayathree Lalanga De Abrew ¹ , Deshapriya S ¹ , Gamage P ¹
Affiliations	¹ National Hospital Galle, Sri Lanka

ABSTRACT

Introduction: Hand hygiene is the most effective measure to prevent hospital-acquired infections, particularly in high-risk areas such as the Pediatric Intensive Care Unit (PICU). Adherence to the World Health Organization (WHO) "Five Moments for Hand Hygiene" is essential to reduce cross-transmission.

Objectives: To assess hand hygiene compliance according to WHO guidelines, compare practices among doctors, nurses, and allied health professionals (AHPs), and identify barriers to adherence.

Methods: A prospective observational audit was conducted in the PICU at National Hospital Galle using the WHO Hand Hygiene Observation Form. Fifty hand hygiene opportunities were observed across staff categories.

Results: Overall compliance was 62%. Compliance was highest before aseptic procedures (100%) and after body fluid exposure (83.3%). Nurses showed the highest compliance (83.3%), followed by AHPs (75%) and doctors (58.8%). Noncompliance was common during busy periods.

Conclusion: Hand hygiene compliance remains suboptimal, highlighting the need for regular training, reinforcement, and repeat audits.





ABSTRACT ID: PP 120

Title	Improving Patient Safety Through Standardized Medication Documentation: Evidence from a Clinical Audit
Authors	Wadu Mesthrige Dilhani Mihiri Peiris ¹ , U.B. Liyanage ¹ , N.W.D.N. Ayeshan ¹ , G. K. A. Jayathilaka ¹ , U.G.C Lasantha ¹ , B.K.T. De Silva ¹
Affiliations	¹ National Hospital Galle, Sri Lanka

ABSTRACT

Introduction: Accurate documentation of medications using generic names is essential to ensure patient safety, continuity of care, and optimal clinical outcomes. This is particularly important for drugs prescribed in out-of-hospital practitioner (OHP) and outpatient department (OPD) settings when patients are later admitted for the same or recurrent illnesses.

Objectives: To assess the adequacy of generic name documentation in medications prescribed in OHP and OPD settings among patients requiring inpatient care.

Methods: A cross-sectional clinical audit was conducted in Ward 36, National Hospital, Galle, from November 1, 2025, to January 31, 2026. Data were collected by trained medical personnel using a structured questionnaire based on patients' previously prescribed medications. Inclusion criteria comprised patients who presented with prior medications (tablet or syrup form) at admission.

Results: Among 710 admissions, 580 patients (81%) had a history of prior treatment; 357 were from OHP settings and 227 from hospital OPD services. Only 20% of medications were appropriately labeled with generic names in both settings. Brand-name labeling was observed in 15%, while 65% lacked adequate labeling. Similar deficiencies were noted in tablets and syrups. Unsafe practices included non-specific containers, labeling based on tablet color, and absence of patient identification. Only 35% of medications included the patient's name and age, though 70% provided clear dosage and frequency instructions.

Conclusion: Poor documentation, limited use of generic names, and inadequate labeling increase patient safety risks. Standardized prescribing practices and improved clinician awareness are essential to prevent adverse outcomes and enhance patient care.





ABSTRACT ID: PP 121

Title

“Charting with Care”: Improving Completeness of Paediatric Admission Clerking Through a Ward-Based Quality Improvement Initiative

Authors

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ABSTRACT

Introduction: Complete and structured paediatric admission clerking is essential for accurate diagnosis, patient safety, continuity of care, and medico-legal protection. Informal observations at Maternity and Children's Hospital, Kalutara revealed variability and incomplete documentation in admission records, particularly regarding growth parameters, blood pressure documentation and differential diagnosis and problem list documentation.

Objectives: To improve the completeness of paediatric admission clerking from baseline to $\geq 90\%$ compliance within three months.

Methods: A clinical audit was conducted over three months from November 2025 to January 2026. A 21-item clerking checklist was developed, including history, examination (with ENT examination), growth parameters and centiles, blood pressure and centiles, diagnosis, management plan, and clinician identification details. Baseline data were collected from 30 consecutive admissions. Interventions included introduction of a standardized clerking proforma, awareness sessions for House Officers, display of ward checklists, and periodic feedback during ward rounds. Re-audits were conducted monthly to assess improvement.

Results: Pre-intervention overall clerking completeness was 75.25%. Post-intervention, overall compliance increased to 91.6%, achieving the $\geq 90\%$ target. Marked improvements were observed in growth centiles (33.3% to 80%), blood pressure centiles (5% to 78%), differential diagnosis (0% to 75%), and problem list documentation (0% to 79%). The improvement was statistically significant ($p < 0.001$).

Conclusion: Introduction of a standardized clerking checklist with regular feedback significantly improved the completeness of paediatric admission documentation. Sustained monitoring and integration into staff orientation are recommended to maintain compliance and enhance patient safety.





ABSTRACT ID: PP 122

Title	"Cooling the Fear": Improving Caregivers' Knowledge on Childhood Fever Management Through a Clinic-based Quality Improvement Initiative
Authors	Dissanayaka Mudiyanseelage Shalini Minoli Dissanayaka ¹ , MHSM Hassan ¹ , SR Bopitiya ¹ , RJMKA Jayasundara ¹ , KAHS Jayasooriya ²
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ABSTRACT

Introduction: Childhood fever is a common reason for paediatric consultations, and misconceptions regarding its management contribute to anxiety and inappropriate treatment practices. This Quality Improvement (QI) project was conducted at Maternity and Children's Hospital, Kalutara to improve caregivers' knowledge on home-based childhood fever management.

Objective: To assess baseline knowledge of caregivers and evaluate the effectiveness of a brief educational intervention.

Methods: A pre-post interventional QI study was conducted over six months from August 2025 to January 2026 among caregivers attending the paediatric clinic. Baseline knowledge was assessed during the first three months using a 10-item Adapted Parental Fever Management Knowledge Questionnaire. A score $\geq 75\%$ ($\geq 8/10$) indicated satisfactory knowledge. Immediately after the assessment, caregivers received a structured educational session and an information leaflet, and a childhood fever management poster was displayed at the paediatric clinic to reinforce key messages. Post-intervention knowledge was reassessed over the next three months using the same questionnaire among caregivers who returned for follow-up. Proportions were compared using the Chi-square test, with $p < 0.05$ considered significant.

Results: A total of 711 caregivers completed the baseline assessment, of whom 505 (71.0%) were reassessed post-intervention. The proportion of caregivers with satisfactory knowledge increased significantly from 57% at baseline to 88% following the intervention ($p < 0.001$).

Conclusion: A simple educational intervention significantly improved caregivers' knowledge on childhood fever management. Incorporating structured education into routine clinic practice is a feasible and effective strategy to reduce fever-related misconceptions.





ABSTRACT ID: PP 123

Title	Better Experience, Better Care: Improving Caregiver Satisfaction in the Paediatric Ward Services at Maternity and Children's Hospital, Kalutara
Authors	Dissanayaka Mudiyanseelage Shalini Minoli Dissanayaka ¹ , MHSM Hassan ¹ , SR Bopitiya ¹ , RJMKA Jayasundara ¹ , KAHS Jayasooriya ²
Affiliations	¹ Department of Paediatrics and Neonatology, Faculty of Medicine, University of Moratuwa, Sri Lanka ² Department of Obstetrics and Gynaecology, Faculty of Medicine, University of Moratuwa, Sri Lanka

ABSTRACT

Introduction: Caregiver satisfaction is a key indicator of quality paediatric inpatient care. Improving communication, ward environment, and accessibility of information can enhance service experience.

Objective: To improve caregiver satisfaction with paediatric ward services to at least 85% within six months through a ward-based quality improvement initiative.

Methods: A pre-post interventional Quality Improvement study was conducted over six months from August 2025 to January 2026 in the paediatric ward in Maternity and Children's Hospital, Kalutara. Baseline caregiver satisfaction was assessed during the first two months using a 20- item questionnaire among 120 caregivers. Interventions were implemented over the next two months, including staff education on effective communication, display of a ward information board, and establishing a dedicated daily time for caregivers to interact with the healthcare team and discuss their concerns. Post-intervention satisfaction was assessed among 150 caregivers using the same questionnaire.

Results: Overall caregiver satisfaction improved from 53% (64/120) at baseline to 86% (129/150) post-intervention ($p < 0.001$). Significant improvements were observed in specific domains: nurses explained procedures before performing them (43% to 88%, $p < 0.001$), prompt provision of medical care after admission (55% to 84%, $p < 0.001$), information about medicines and possible side effects (30% to 75%, $p < 0.001$), and caregiver involvement in treatment decisions (47% to 70%, $p < 0.001$).

Conclusion: The ward-based QI interventions significantly improved caregiver satisfaction. Better communication, a more supportive ward environment, and regular parent-staff interaction proved to be simple, low-cost ways to improve paediatric inpatient care.





ABSTRACT ID: PP 124

Title	A Clinical Audit on Knowledge Assessment of Healthcare Workers In Paediatric Units Regarding Proper Temperature Measurement In Base Hospital – Wathupitiwala
Authors	Wickramasooriya Arachchige Chamodi Madushani Shanika Wijerathne ¹ , Abeykoon Jalath Rathnayake Osman Smith ¹ , Chinthaka Rajapaksha ¹
Affiliations	¹ BH Wathupitiwala, Sri Lanka

ABSTRACT

Background: Accurate temperature measurement is essential in paediatric clinical practice, as errors may result in misdiagnosis, inappropriate treatment, and compromised patient safety. Evaluating healthcare workers' knowledge is important to ensure adherence to evidence-based guidelines and institutional protocols.

Objective: To assess the knowledge of healthcare professionals regarding proper temperature measurement in children at Base Hospital – Wathupitiwala and to identify areas requiring targeted quality improvement interventions.

Methods: A cross-sectional clinical audit was conducted among healthcare staff in paediatric units. Of 40 questionnaires distributed, 39 valid responses were analysed (response rate: 97.5%). A validated 25-item multiple-choice questionnaire was used. Data were analysed using SPSS version 26, applying descriptive statistics including frequencies, percentages, mean, and standard deviation.

Results: Among the 39 participants, 17 (43.6%) were doctors and 22 (56.4%) were nurses. The mean professional experience was 7.44 ± 6.81 years (range: 1–25 years). Overall knowledge was satisfactory, with excellent performance in rectal contraindications (100%), oral technique (100%), tympanic thermometer identification (100%), documentation (94.9%), and rectal fever definition (87.2%). However, critical knowledge gaps were identified in appropriate site selection for infants under three months (25 % correct), thermometer calibration frequency (35.9%), and age suitability for tympanic measurement (51.3%). Moderate deficiencies were observed in oral measurement age reliability (59%), axillary measurement duration (64.1%), and axillary fever interpretation (69.2%).

Conclusion: Although foundational knowledge was generally adequate, significant deficiencies were identified in age-specific site selection and equipment calibration practices. Targeted educational interventions and re-audit are needed to enhance patient safety and clinical accuracy.





ABSTRACT ID: PP 125

Title	A Clinical Audit on Knowledge Assessment of Healthcare Workers in Paediatric Units Regarding Taking Anthropometric Measurements of Paediatric Patients In DGH - Kegalle
Authors	Abeykoon Jalath Rathnayake Osman Smith ¹ , Wickramasooriya Arachchige Chamodi Madushani Shani ¹ , Neel Kannangara ¹
Affiliations	¹ DGH Kegalle, Sri Lanka

ABSTRACT

Introduction: Accurate paediatric anthropometric measurements are essential for growth monitoring, nutritional assessment, medication dosing, and early identification of developmental abnormalities. Inconsistent measurement techniques and interpretation may compromise patient safety and quality of care. A structured knowledge audit was conducted to evaluate healthcare workers' competency in paediatric anthropometric measurement principles and practices within our institution.

Objectives: To assess current knowledge levels of healthcare professionals regarding paediatric anthropometric measurements, identify specific knowledge gaps, evaluate alignment with clinical standards, and inform targeted educational interventions to improve quality of care.

Methods: A cross-sectional audit was conducted among 41 healthcare professionals, including nurses (75.6%) and physicians (24.4%). Participants completed an anonymous 25-item multiplechoice questionnaire covering four domains: fundamental concepts, measurement techniques, equipment and quality control, and application/documentation. Descriptive statistics were used to analyse performance by question, domain, profession, and years of experience.

Results: The overall average score was approximately 84%, indicating good foundational knowledge. Strong performance (>90%) was observed in equipment use, documentation, and several measurement technique domains. However, four questions scored below 60%, with one critical item demonstrating only 29.3% correct responses. Knowledge gaps were observed across both professional groups and were not associated with years of experience (mean 11.3 years). Findings suggest systemic knowledge inconsistencies rather than role- or seniority-specific deficiencies.

Conclusions: While overall competency was satisfactory, targeted education is required to address identified gaps in key conceptual and procedural areas. Regular competency assessments and standardized refresher training are recommended to enhance patient safety, ensure protocol adherence, and strengthen institutional quality improvement efforts.





ABSTRACT ID: PP 126

Title	A Clinical Audit on Hand Hygiene Knowledge Assessment And Compliance Among Healthcare Workers in Paediatric Units in DGH - Kegalle
Authors	Abeykoon Jalath Rathnayake Osman Smith ¹ , Wickramasooriya Arachchige Chamodi Madushani Shani ¹ , Neel Kannangara ¹
Affiliations	¹ DGH Kegalle, Sri Lanka

ABSTRACT

Background: Hand hygiene is the most effective strategy for preventing healthcare-associated infections (HAIs). Despite WHO recommendations, gaps in knowledge and compliance persist in healthcare settings.

Objective: This audit evaluates the current level of hand hygiene knowledge and compliance among healthcare workers in the paediatric units in General Hospital Kegalle.

Methods: A descriptive cross-sectional audit was conducted among 45 healthcare workers, of whom 44 provided valid responses (response rate: 97.8%). Data were collected using a structured questionnaire based on the WHO Hand Hygiene Knowledge Questionnaire (2009 revision). The instrument assessed demographic characteristics, knowledge, self-reported practices, barriers, attitudes, and training. Data were analysed using descriptive statistics.

Results: Participants were predominantly female (73.2%) and nurses (54.5%). The overall mean knowledge score was 10.7 out of 15 (71.4%), indicating moderate knowledge. High correct response rates were observed for identifying hand hygiene as the most effective preventive measure (100%) and the main route of cross-transmission (90.9%). However, major gaps were identified in understanding complete hand hygiene indications (30%) and prevention of transmission to healthcare workers (11.4%). Self-reported compliance was high, with 79.5% always performing hand hygiene after patient contact. The main barriers were forgetfulness (38.6%) and workload (34.1%). Although 93.2% perceived hand hygiene as very effective, 54.5% had not received formal training within the past two years.

Conclusion: While overall knowledge and self-reported compliance were satisfactory, significant conceptual gaps and limited recent training highlight the need for regular refresher programs and behavioural interventions to strengthen patient safety practices.





ABSTRACT ID: PP 127

Title	Documentation Compliance of Key Neonatal Parameters in the Child Health Development Record (CHDR): A Clinical Audit at GSFHW
Authors	Udari Ruwanpathirana ¹ , Jithma Fonseka ¹ , Rohan Wickramasinghe ²
Affiliations	¹ German Sri Lanka Friendship Hospital for Women ² National Hospital, Galle, Sri Lanka

ABSTRACT

Introduction: The Child Health Development Record (CHDR) is central to continuity of neonatal care in Sri Lanka. Accurate documentation supports growth monitoring, screening follow-up, early risk identification and medico-legal purposes. In routine clinical practice, key neonatal details may be incompletely recorded, affecting continuity and quality of care.

Objectives: Assessed the documentation compliance of key ten neonatal parameters mentioned in first and seventh pages of CHDR.

Method: A prospective clinical audit was conducted over five weeks at the Well Baby Clinic, GSFHW. Eighty-five first-visit infants with their CHDRs, which were completed by health staff at GSFHW were assessed using a structured proforma.

Results: Documentation compliance was highest for birth weight (98%), OFC (75%) and birth length (25%). Lower documentation rates were observed for APGAR score (69%), vitamin K administration (88%) and discharge weight (48%). Congenital hypothyroidism screening by heel prick was documented in only 61% of records. Breastfeeding establishment was documented in 68%, leaving nearly one-third undocumented. Among infants with genuine risk factors (n = 54), documentation of the need for special care was only 28%, indicating missed opportunities for appropriate follow-up. Overall documentation non-compliance for screening for critical congenital heart disease was 25% and represents a major patient safety concern warranting further evaluation.

Conclusion: Although basic anthropometric parameters were documented, critical perinatal and screening information showed major gaps. Targeted staff training, checklist-based documentation, assigning responsibility for CHDR completion and regular re-audits are recommended to improve documentation quality and continuity of neonatal care and strengthen long-term neonatal follow-up and service delivery outcomes.





ABSTRACT ID: PP 128

Title	Assessing Adherence to Neonatal Basic Airway Management and Mask Ventilation Guidelines in a Level 3 Neonatal Unit In Colombo, Sri Lanka – A Clinical Audit
Authors	Kushangi Chamilka Dissanayake ¹ , Rejinten Jayawardhana ² , Lekanie DeSilva ¹ , Mohommed Safa ¹ , Nalin Gamaathige ¹
Affiliations	¹ De Soysa Hospital for Women, Sri Lanka ² PGIM, University of Colombo, Sri Lanka

ABSTRACT

Introduction: Approximately 10% of neonates require stabilization at birth, with 5% needing positive pressure ventilation (PPV). Despite its criticality, airway obstruction and mask leaks remain common even among experienced providers, highlighting a need for regular skill evaluation and reinforcement.

Objectives: To assess adherence to neonatal ventilation guidelines via simulation, evaluate baseline performance, provide structured feedback with targeted education, and measure skill improvement after six weeks.

Methodology: This prospective audit included 53 healthcare workers at DeSoysa Maternity Hospital. Participants managed simulated resuscitation scenarios assessed by three evaluators using standardized checklists. Following immediate feedback and hands-on training, 45 participants were reassessed six weeks later.

Results: Baseline performance was suboptimal; no participant demonstrated full competency. Initial scores for neutral head position (50.9%), jaw thrust (11.3%), oral airway insertion (22.6%), mask size selection (75.5%), and C&E grip (28.3%) were low. Correct PIP/PEEP settings (37.7–41.5%) and ventilation breaths (5.7%) were also inadequate. Reassessment showed marked improvements: neutral position rose to 91.1%, jaw thrust to 55.5%, and oral airway insertion to 100%. Mask size and oxygen flow settings reached 100%, while PIP/PEEP accuracy rose to 82.2%. Correct ventilation breaths improved to 44.4%, and overall full competency increased from 0% to 26.6%.

Conclusion: Baseline neonatal airway skills were inadequate. Simulation-based training with structured feedback significantly improved performance across all domains. Regular, systematic reassessment is essential to sustain these life-saving competencies and optimize neonatal outcomes.





ABSTRACT ID: PP 129

Title	Changes in trends of surfactant usage from 2021-2025 in a Level III Neonatal Unit in Colombo Sri Lanka.
Authors	Marianne Nishani Lucas ¹ , Sanduni Wijesinghe ² , Umani Seneviratne ¹ , Imesh Galappaththi ¹
Affiliations	¹ Department of Paediatrics, Faculty of Medicine, University of Colombo, Sri Lanka ² University Neonatal Unit, De Soysa Hospital for Women, Sri Lanka

ABSTRACT

Introduction: Surfactant is vital for the management of preterm babies. However, it is also useful for term babies with severe respiratory distress. Impending shortage of surfactant forced us to be stringent regarding surfactant use during the economic crisis in 2022.

Objective: To describe the changes in trends of surfactant usage from 2021-2025 in a Level III Neonatal Unit in Colombo Sri Lanka.

Method: A retrospective study was conducted at the De Soysa Hospital for Women, Colombo between 01.01.2021 to 31.12.2025. Permission was obtained from the head of the institution. The decision to administer surfactant was taken by the consultant neonatologist(CN). An audit form is filled and signed by CN following each dose of surfactant administration. These forms that are archived by the chief pharmacist were used for data collection. Birth data was obtained from the institutional perinatal-mortality-monthly-statistics. The Microsoft Excel for Mac 2023 v16.77.1 was used for descriptive analysis.

Results: Babies requiring surfactant in 2021 and 2022 were 143 and 121 respectively. A sharp decline to 56, 63 and 59 was seen in 2023, 2024 and 2025 respectively. Percentage surfactant use per birth was seen to decline from 1.8 to 1.2 % from 2021-2025. Percentage surfactant use in term babies declined from 29-35% in 2021-2022 to 3% in 2025. Percentage use increased from 42% -78% from 2021-2025 for babies <32weeks gestation.

Conclusion: The number of babies treated with surfactant showed a sharp decline from 2021- 2025, with a marked reduction of use in term babies.





ABSTRACT ID: PP 130

Title	When to Stop What We Start: A Stewardship Gap Analysis of Carbapenem Use in a Tertiary Neonatal Intensive Care Unit (NICU)
Authors	Naveen Nair Gangadaran ¹ , David Ng Chun-Ern ¹ , Pauline Choo Poh Ling ¹ , Siti Nabilah Md Yazid ²
Affiliations	¹ Department of Paediatrics, Tuanku Jaafar Hospital, Malaysia ² Department of Pharmacy, Tuanku Jaafar Hospital, Malaysia

ABSTRACT

Introduction: Carbapenems are frequently initiated empirically for suspected neonatal nosocomial sepsis, driven by concerns for resistant Gram-negative pathogens. However, the extent to which empirical carbapenem use aligns with actual microbial ecology and resistance patterns remains unclear. Understanding this ecology and prescribing interface is critical to optimizing stewardship without compromising patient safety.

Objectives: To evaluate the relationship between empirical carbapenem prescribing, microbial ecology, resistance patterns, and stewardship review outcomes in a tertiary NICU.

Methods: We conducted a retrospective cross-sectional utilization and stewardship outcome analysis over a one-year period in 2025, involving 46 neonates initiated on meropenem for suspected nosocomial sepsis. Data sources included days of therapy for meropenem utilization (DOT/1000 patient-days), empirical versus definitive therapy, 72-hour antimicrobial stewardship (AMS) review outcomes, organism distribution, and NICU antibiogram.

Results: Total meropenem utilization was 37.8 DOT/1000 patient-days. Empirical therapy exceeded definitive use (22.8 vs 14.9 DOT/1000 patient-days), with a 1.5-fold higher exposure. Median empirical DOT surpassed definitive DOT (22.6 vs 9.2). Among 46 reviewed cases, 41.3% were de-escalated by 72 hours, while 52.2% continued therapy. Culture-negative clinical instability accounted for 75% of prolonged courses. Carbapenem exposure was predominantly front-loaded prior to microbiological confirmation. This reflects ecological pressure from Gram-negative nosocomial pathogens led by *Klebsiella pneumoniae*.

Conclusion: Diagnostic uncertainty remains the principal barrier to early carbapenem deescalation, highlighting the need to strengthen culture yield and targeted empiric algorithms. Integrating ecological surveillance with structured AMS pathways is key to optimizing carbapenem stewardship in NICUs.





ABSTRACT ID: PP 131

Title	A Clinical Audit on Use of Non-pharmacological Pain Relief Practices during Invasive Neonatal Procedures in the Post Natal Wards of a Tertiary Care Hospital in Sri Lanka
Authors	Piumi Madawala ¹ , Pawanthi Govinnage ¹ , Tharanga Mannapperuma ¹ , Nimanthi Rathnayake ¹ , Sandhya Doluweera ¹
Affiliations	¹ Castle Street Hospital for Women, Colombo, Sri Lanka

ABSTRACT

Introduction: Neonates undergoing invasive procedures experience significant pain, which, if untreated, can lead to adverse physiological and neurodevelopmental outcomes. Evidencebased guidelines recommend routine use of simple non-pharmacological pain relief measures such as oral sucrose/glucose, non-nutritive sucking, swaddling, and skin-to-skin care. Despite proven effectiveness, these strategies are often underutilized in routine clinical practice.

Objectives: To evaluate current non-pharmacological pain relief practices during invasive procedures in neonates in the postnatal wards of Castle Street Hospital for Women and to assess the impact of targeted interventions.

Methods: A prospective observational clinical audit was conducted in postnatal wards. Neonates (0–28 days) undergoing heel prick, venepuncture, or intravenous cannulation were observed. Data were collected using a standardized checklist documenting procedure type and use of non-pharmacological pain relief methods. Following baseline assessment, interventions included displaying educational posters on recommended practices and conducting staff education sessions. A re-audit assessed post-intervention improvement.

Results: Fifty procedures were observed: heel pricks (23), venepunctures (19), and IVcannulations (8). Pain relief was administered in only 4 procedures (8%), primarily using a dextrose-soaked swab. Consequently, over 90% of neonates did not receive any pain relief, indicating a major practice gap. After targeted interventions, re-audit findings demonstrated a 70% improvement in compliance with recommended practices.

Conclusion: Non-pharmacological pain relief during neonatal procedures was markedly underutilized. Simple educational and visual reminder interventions significantly improved practice. Sustained efforts, regular training, and periodic re-audits are recommended to ensure consistent, compassionate pain management for neonates.





ABSTRACT ID: PP 132

Title	A Clinical Audit on Knowledge, Training, Confidence, And Clinical Practice in Neonatal Resuscitation And Neonatal Life Support (NLS) Among Healthcare Staff At DGH Ampara.
Authors	Sashna Basheer ¹ , Nimasha Wimalaguna ¹ , Dhananjani Lakmali ¹ , Sanduni Abeywickrama ¹ , Udyogi De Zoysa ¹ , Rashmika Navod ¹ , Chamli Weerasekara ¹
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ABSTRACT

Introduction: Neonatal resuscitation is a critical component of essential newborn care. Sri Lanka National Neonatal Life Support (NLS) guidelines recommend that all healthcare staff attending deliveries are adequately trained, confident, and supported.

Objective: To assess knowledge, training, confidence, and clinical practice related to neonatal resuscitation and neonatal life support among healthcare staff at DGH Ampara.

Methodology: A descriptive clinical audit was conducted using a structured questionnaire among 60 doctors, nurses, and midwives involved in neonatal care in NICU, postnatal wards, labour rooms, and operating theatres at DGH Ampara.

Results: Of the participants, 12% were doctors, 82% nurses, and 5% midwives. Staff with >10 years of experience accounted for 44%, while 28% had <1 year of experience. No prior neonatal resuscitation training was reported by 59%, and only 24% had training within the last year. Knowledge assessment showed 13% scored >85% (excellent/fully competent), 16% scored 75–84% (good/largely competent), 57% scored 50–74% (fair/partially competent), and 13% scored <50% (poor/non-competent), with an overall average score of 64%. Where 39% were confident, 43% somewhat confident and 18% not confident with their skills and practices. Reported barriers included inadequate training (72%), staff shortages (39%), and equipment and communication issues (23% each). The most preferred improvement was to arrange regular training updates (79%).

Conclusion: Compliance with national NLS standards at DGH Ampara is suboptimal. Staff compliance and preparedness have not been formally assessed. Focused training on critical knowledge gaps to bridge the confidence-competence gap and a re-audit after 12 months are recommended.





ABSTRACT ID: PP 133

Title	Knowledge and Attitudes of ICU Doctors Regarding Evidence-Based Paediatric Pain Management: A Clinical Audit in a Tertiary Care Unit
Authors	Lukshiga Shanmugaratnam ¹ , Nalin C Kithulwatta ²
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ABSTRACT

Introduction: Sub optimal pain management in critically ill children is often linked to clinician misconceptions regarding opioid use, addiction risk, and pain assessment. Previous validated surveys have demonstrated persistent knowledge deficits among healthcare professionals. Local evaluation is necessary to inform targeted educational interventions.

Objectives: To assess knowledge and attitudes of ICU doctors regarding evidence-based paediatric pain assessment and management, and to identify priority areas for educational improvement.

Methods: A prospective clinical audit was conducted in the Medical Intensive Care Unit at Lady Ridgeway Hospital, Sri Lanka. All ICU doctors working during the audit period were invited to participate. An adapted version of the validated Pediatric Nurses' Knowledge and Attitudes Survey Regarding Pain was administered before and after a structured educational intervention. The questionnaire assessed knowledge of pain mechanisms, assessment principles, opioid pharmacology, adjuvant therapies, and non-pharmacological strategies. Scores were expressed as percentages and analysed using paired-samples t testing.

Results: Twenty-two of 31 eligible doctors participated (response rate 71%). The baseline mean score was 43.9% (SD 9.2), with marked deficits in opioid dosing, addiction risk, placebo use, and procedural pain management. Following the educational session, the mean score increased to 62.8% (SD 6.7), reflecting a mean improvement of 18.9 percentage points. The increase was statistically significant ($t(20) = 15.44$, $p < 0.001$), with a very large effect size (Cohen's $d = 3.36$).

Conclusions: Significant knowledge gaps were identified. Targeted education resulted in substantial improvement, supporting the need for ongoing structured training in paediatric critical care pain management.





ABSTRACT ID: PP 134

Title	Assessment Of Knowledge Regarding Troubleshooting Of Heated Humidified High Flow Nasal Cannulae (HHHFNC) Among Nursing Officers In the Paediatric Intensive Care Unit (PICU)
Authors	Kumarage Don Jayantha Madusanka Kumara Galahitiyawa ¹ , Piumi Madawala ¹ , B A H K Balasooriya ² , Samantha Deshapriya ¹ , Pradeep Gamage ¹
Affiliations	¹ National Hospital Galle, Sri Lanka ² Sri Jayewardenepura General Hospital, Sri Lanka

ABSTRACT

Introduction: Heated Humidified High Flow Nasal Cannulae (HHHFNC) therapy is widely used in the Paediatric Intensive Care Unit (PICU) at National Hospital – Galle as non-invasive respiratory support for children with respiratory distress and hypoxaemia. Proper setup, monitoring and timely troubleshooting are essential to prevent complications and avoid unnecessary escalation. This audit evaluated nursing officers' knowledge regarding HHHFNC troubleshooting in accordance with international and institutional standards.

Objectives: To assess knowledge of HHHFNC troubleshooting among PICU nursing officers, including identification of common problems, management of humidification and cannula fit issues, response to device alarms, and appropriate escalation of unresolved problems.

Methods: A prospective, questionnaire-based clinical audit was conducted among all eligible PICU nursing officers (n=24) using total population sampling. A structured 12-item online questionnaire assessed knowledge across troubleshooting domains. Each correct response scored one point (maximum 12). Results were analysed as percentage correct per question and compared with the target standard of ≥90% correct knowledge in each domain.

Results: The mean score was 10.9/12 (91%). Overall, 91.7% scored ≥80%. Standards were achieved in circuit disconnection, humidification, cannula fit and escalation domains (100%). Documentation (58.3%) and identification of common troubleshooting issues (58.3%) did not meet the ≥90% standard.

Conclusions: PICU nursing officers demonstrated good overall knowledge of HHHFNC troubleshooting. Targeted education and re-audit in 3–6 months are recommended to achieve full compliance with audit standards.





ABSTRACT ID: PP 135

Title	Clinical Stability of Patients on Admission to The PICU: A Retrospective Audit
Authors	Loku Hewage Chanika Thilini Lokuhewage ¹ , Chathurangi, ADI ¹ , Gamage, P ¹ , Deshapriya, S ¹
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ABSTRACT

Introduction: The stability of patients at admission to the Paediatric Intensive Care Unit (PICU) is a critical determinant of outcome. Early recognition of instability enables timely interventions, particularly in critically ill and post-operative paediatric patients.

Objectives: To assess the clinical stability of patients at PICU admission in a tertiary care hospital, identify deficiencies in pre-transfer care, evaluate implementation of pre-transfer advice, and review documentation practices to improve morbidity.

Method: A retrospective audit was conducted over 3 months. Of 76 admissions, complete data were available for 60 patients. Patients were categorized as medical (68%) or post-operative (32%). Clinical parameters analyzed included cardiovascular, respiratory, neurological status, blood glucose, and lactate levels.

Results: Among medical patients, cardiovascular instability was most common (14.6%), rising to 22% within the first hour; 7.3% required inotropes. Respiratory instability occurred in 9.7% (7.3% intubated). CNS instability included low GCS (7.1%) and non-reactive pupils (9.8%). Hypoglycemia and elevated lactate were noted in 5% and 26.8%. All deaths (12%) occurred in medical patients, 80% with cardiovascular instability and 60% with >2 systems unstable. Post-operative patients showed respiratory instability in 15.8% (5.35% intubated), cardiovascular instability in 10.5% (none required inotropes), and stable CNS parameters.

Conclusion: A considerable proportion of patients, especially medical admissions, were unstable on arrival. Documentation gaps and lack of standardized pre-transfer protocols were identified. Recommendations include prospective audits, structured admission forms, digital data entry tools, improved pre-transfer stabilization, and enhanced communication between teams to optimize outcomes.





ABSTRACT ID: PP 136

Title	An Audit on Selected Clinical Quality Indicators in the Paediatric Accident & Emergency Department of Sirimavo Bandaranaike Specialized Children's Hospital, Peradeniya
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ABSTRACT

Introduction: Timely assessment and management are essential in high-quality paediatric emergency care. Time-based clinical quality indicators provide objective measures of efficiency, patient flow, and safety. This clinical audit assessed selected time-based quality indicators in the Paediatric Accident & Emergency (A&E) Department of Sirimavo Bandaranaike Specialized Children's Hospital, Peradeniya.

Objectives: To evaluate selected time-based clinical quality indicators in the Paediatric A&E Department, including time to initial nursing assessment, total duration of stay in A&E, time to medical assessment, and admission patterns across different shifts.

Methods: A retrospective clinical audit was conducted over a 10-day period (14–23 December 2025). All presentations were included, excluding on-arrival deaths. Data extracted from registration, triage, and clinical records. Admissions were categorized by shift, and descriptive statistics analyzed.

Results: Sixty paediatric patient records were analyzed. Majority males (61.7%), with ages ranging from 1 month to 13 years. The most admissions occurred during the morning/day shift (60.0%). The mean time to initial nursing assessment was 5.6 minutes (range: 0–15 minutes) and was consistent across all shifts. The mean total duration of stay in A&E was 74.2 minutes (range: 13 minutes to 3 hours 45 minutes). Documentation of medical assessment times was incomplete, limiting detailed analysis. No patients left against medical advice or re-attended within seven days.

Conclusions: This audit demonstrates timely initial nursing assessment and acceptable patient flow in the Paediatric A&E Department. However, incomplete documentation of medical assessment times highlights an important area for improvement. Adherence to standard documentation is essential to quality improvement.





ABSTRACT ID: PP 137

Title	An audit evaluating the response and safety ile to intravenous magnesium sulfate infusion in children with acute severe asthma admitted to the intensive care unit of a tertiary care hospital in Sri Lanka.
Authors	Kurukulasuriya Marini Dinusha Fernando ¹ , Nalin C. Kitulwatte ¹ , Deshan Adhihetty ¹ , Edirisinghe D. Kasun N. Ariyaratne ¹
Affiliations	¹ Lady Ridgeway Hospital for Children, Sri Lanka

ABSTRACT

Background: Acute severe asthma is characterized by bronchospasm, marked airway narrowing, and significant respiratory distress. Intravenous magnesium sulfate (MgSO₄) is increasingly used as an adjunctive therapy in acute severe exacerbations or life-threatening asthma in many countries, for patients do not respond adequately to first line therapy.

Objective: To evaluate the effectiveness and safety of continuous intravenous MgSO₄ infusion in children with acute severe asthma in a pediatric intensive care unit (PICU) through a retrospective audit.

Methods: A retrospective audit was conducted on 20 children aged 5–12 years admitted to the PICU with acute severe asthma. At presentation, all were unable to speak or feed due to breathlessness, with respiratory rates >30/min and heart rates >120/min. None required intubation. Two had depressed consciousness, four were agitated, and the remainder were conscious but distressed. All patients received intravenous MgSO₄ at 10–20 mg/kg/hour, continued for 1–4 days until clinical resolution of bronchospasm and respiratory distress. Clinical response and adverse events were reviewed.

Results: Eleven children (55%) demonstrated marked clinical improvement within 24 hours, five (25%) required 48 hours of infusion, and four (20%) required up to four days of therapy. No significant adverse effects, including hypotension, arrhythmias, or hyporeflexia, were observed. Two children developed elevated serum magnesium levels without associated clinical toxicity.

Conclusion: Continuous intravenous MgSO₄ infusion at 10–20 mg/kg/hour was effective and well tolerated in this cohort and the findings support its safe use.





ABSTRACT ID: PP 138

Title	An audit of patient assessment prior to inter-hospital transfer using a call conference form and patient assessment on admission to a tertiary care hospital Paediatric Intensive Care Unit.
Authors	Kurukulasuriya Marini Dinusha Fernando ¹ , Nalin C. Kitulwatte ¹ , Deshan Adhihetty ¹ , Shenali Wijetunge ² , Pradeep Gamage ² , Samantha Deshapriya ² , Manjula Hewageegana ¹
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ABSTRACT

Background: Inter-hospital transfer of critically ill children carries substantial risk, particularly when pre-transfer stabilization is inadequate. Structured call conference-based assessments between peripheral hospitals and tertiary paediatric intensive care units (PICUs) may improve communication and optimize stabilization prior to transport. This audit evaluated the clinical status of paediatric patients before transfer and upon admission to a PICU following structured call conference assessments.

Method: A prospective audit was conducted over three months, including all paediatric patients transferred from peripheral hospitals to PICU at National hospital Galle. Twenty-nine transfers were analyzed. A structured call conference form was completed prior to transfer, documenting initial clinical parameters, which were discussed with the receiving ICU consultant. Stabilization advice for transport and interim ward management was provided. Patient status was reassessed on PICU admission.

Results: Of 29 critically ill children, 4 (13.8%) developed cardiovascular instability during transport despite being stable at departure. Respiratory status remained stable in most cases with appropriate support; however, one patient (3.4%) experienced endotracheal tube dislodgement requiring repositioning. Neurological deterioration was observed in 3 patients (10.3%) who had dilated, non-reactive pupils on admission despite on departure reactive pupils. Deterioration was associated with equipment malfunction, inadequate monitoring, insufficient drug preparation, junior escorting staff lacking airway skills, and communication gaps.

Conclusion: Structured call conference assessments, strict adherence to stabilization advice, competent transport personnel, and standardized pre-transfer checklists are essential to improve physiological stability and ensure safer paediatric inter-hospital transfers.





ABSTRACT ID: PP 139

Title	Assessment of clinicians' practices in using intravenous magnesium sulfate (MgSO ₄) compared with intravenous aminophylline for the management of acute severe asthma among a cohort of clinicians in Sri Lanka.
Authors	Kurukulasuriya Marini Dinusha Fernando ¹ , Nalin C. Kitulwatte ¹ , Deshan Adhihetty ¹ , Edirisinghe D. Kasun N. Ariyaratne ¹ , K Jeevarathan ¹
Affiliations	¹ Lady Ridgeway Hospital for Children, Sri Lanka

ABSTRACT

Background: Intravenous magnesium sulfate (MgSO₄) is an effective second-line therapy for acute severe asthma used in many international guidelines, improving lung function, reducing hospital admissions, and enhancing severity scores in children. In contrast, aminophylline is less favored due to a narrow therapeutic index, frequent side effects, and limited evidence, yet both are still used in pediatric practice.

Objective: To evaluate clinicians' preferences and practices regarding the use of intravenous aminophylline versus magnesium sulfate as second-line therapy for acute severe asthma in pediatric wards in Sri Lanka.

Methods: A prospective clinical audit was conducted among 50 clinicians, including pediatric consultants, senior registrars, registrars, and medical officers working in paediatric wards whose patients transferred to Paediatric Intensive Care Unit, Lady Ridgeway hospital for Children. An interviewer-administered questionnaire assessed their preferences, concerns on use of intravenous MgSO₄ and aminophylline.

Results: Eighty percent (40/50) of clinicians preferred intravenous aminophylline over MgSO₄. Hesitation to use MgSO₄ was due to concerns about potential adverse effects, including hypotension (100%), arrhythmias (100%), bradycardia/heart block (60%), muscle weakness and reduced reflexes (100%), respiratory depression (44%), and flaccid paralysis (10%); however, none had encountered these in practice. Meanwhile, 60% (30/50) were aware of aminophylline-associated arrhythmias and its narrow therapeutic index, and some had observed aminophylline toxicity in the pediatric intensive care setting.

Conclusion: Greater awareness is needed regarding the safety and proven benefits of intravenous MgSO₄ in pediatric acute severe asthma. Magnesium sulfate is relatively safe, requires less complex monitoring than aminophylline, and offers clear clinical advantages.





ABSTRACT ID: PP 140

Title	Audit on Assessment of Knowledge and Practice of Neuroprotective Measures among Nursing Officers in the Paediatric Intensive Care Unit of National Hospital, Galle
Authors	Piumi Madawala ¹ , Madushanka Galahitiyawa ¹ , Pradeep Gamage ¹ , Samantha Deshapriya ¹
Affiliations	¹ National Hospital, Galle, Sri Lanka

ABSTRACT

Introduction: Children admitted to the Paediatric Intensive Care Unit (PICU) with neurological conditions are at high risk of secondary brain injury, which can significantly worsen outcomes. Adherence to evidence-based neuroprotective measures is essential to reduce morbidity and mortality. Nursing officers play a pivotal frontline role in implementing these measures continuously at the bedside; however, variations in knowledge and practice may affect the consistency of care delivery.

Objectives: To assess the knowledge and current practices of nursing officers regarding neuroprotective measures in the PICU of the National Hospital, Galle.

Methods: A prospective, questionnaire-based clinical audit was conducted among all nursing officers in the PICU. Data were collected using a structured Google Form with 15 items (8 knowledge-based and 7 practice-based) developed in accordance with Brain Trauma Foundation guidelines. Knowledge scores $\geq 70\%$ and practice scores $\geq 80\%$ were defined as satisfactory.

Results: Thirty nursing officers participated (100% response rate). The mean knowledge score was 73.75%, with 73.3% achieving satisfactory knowledge. Mean practice adherence was 98.1%, with all participants meeting the satisfactory threshold. Notable knowledge gaps were identified in ventilation (46.7%) and glucose management (65%). In contrast, temperature control, neurological monitoring, head positioning, and seizure management demonstrated high knowledge and excellent practice adherence.

Conclusions: PICU nursing officers demonstrated good overall knowledge and excellent adherence to neuroprotective practices. Targeted educational interventions focusing on ventilation and glycaemic management are recommended. A follow-up re-audit is planned to evaluate the effectiveness of these interventions and promote sustained quality improvement in neurocritical care.





ABSTRACT ID: PP 141

Title	Closing the Gap in Paediatric Oxygen Prescribing: A Quality Improvement Study from Base Hospital Kattankudy, Sri Lanka
Authors	Vijayakanth Vijayakumar ¹ , Vijayakumary Thadchanamoorthy ² , Jabir Sherif ³ , Aleema Rahuman ³
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ABSTRACT

Introduction: Oxygen is a therapeutic agent that requires a formal prescription. It is frequently administered to paediatric patients in clinical settings. However, observations indicate inconsistencies in prescribing practices, documentation, and adherence to established standard protocols.

Methodology: The study employed a prospective before-and-after observational design, comparing data collected prior to and following the implementation of quality improvement (QI) interventions. A baseline prospective audit was conducted in June 2025. Baseline data were obtained through a review of 20 randomly selected paediatric patients admitted to the paediatric ward who were receiving oxygen therapy. The project was conducted in three sequential phases: (1) formation of the Quality Improvement (QI) team and baseline data collection; (2) root cause analysis to identify gaps in prescribing practices; and (3) implementation of weekly Plan-Do-Study-Act (PDSA) cycles to address identified deficiencies and monitor improvement.

Results: At baseline, a formal oxygen prescription was documented in 35% of cases. The prescribed flow rate, target oxygen saturation, and method of oxygen delivery were recorded in 40%, 45%, and 30% of patients, respectively. Additionally, 10% of patients receiving oxygen therapy did not have appropriate monitoring equipment connected. Following the implementation of quality improvement interventions, the rate of valid oxygen prescriptions increased substantially, reaching the recommended standard.

Conclusion: Standardized prescription and monitoring charts improved documentation and increased valid oxygen prescriptions; ongoing audits are needed to sustain compliance.





ABSTRACT ID: PP 142

Title

Single-Centre Experience from a Newly Established Paediatric Allergy Service at Colombo North Teaching Hospital, Ragama, Sri Lanka

Authors

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ABSTRACT

Introduction: Childhood allergies are increasing worldwide. Establishing dedicated paediatric allergy services in resource-limited settings is challenging due to limitations in infrastructure, specialist training, and access to diagnostics. This abstract describes the early experience of a newly established service and its contribution to improving allergy care.

Objectives: To describe the demographic and clinical characteristics of patients managed by the paediatric allergy service at Colombo-North-Teaching-Hospital, Ragama, Sri Lanka, from 1 July 2024-31 January 2026.

Methods: Retrospective analysis of the service database.

Results: A total of 174 referrals were evaluated; 107 (61.5%) were male. Most patients were aged 5–10 years (39.7%). Suspected food allergy accounted for 69.54% (n=121) of referrals, and anaphylaxis was documented in 46.6%. Skin prick testing was performed in 151 patients. Confirmed food allergy was identified in 113 patients, with red meat, dairy, and gelatin as the most frequent allergens; shellfish, wheat and egg were less common. Eighteen were referred with suspected drug-allergy. Most implicated drugs were paracetamol (n=5), NSAIDs (n=5), and beta-lactams (n=4). Seventeen oral graded drug challenges were performed (antibiotics n=9, paracetamol n=5, celecoxib n=3), confirming allergy in seven patients and enabling de-labelling in eleven. Two of three patients challenged with selective COX-2 inhibitors, reacted to celecoxib. Sixteen patients were diagnosed with chronic-spontaneous-urticaria, five with chronic inducible-urticaria and twelve with viral-induced or acute-spontaneous-urticaria.

Conclusions: This early experience highlights a substantial unmet need for specialized paediatric allergy care and demonstrates the feasibility of delivering structured, guideline-based evaluation and management within a tertiary care setting in Sri Lanka.





ABSTRACT ID: PP 143

Title

Alpha Gal Syndrome presenting exclusively with respiratory symptoms

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ABSTRACT

Introduction: Alpha-gal syndrome (AGS) is an IgE-mediated allergy, resulting from sensitization to galactose- α -1,3-galactose (alpha-gal), a carbohydrate found in non-primate mammals, introduced to humans primarily through tick bites. Symptoms vary from delayed onset urticaria to anaphylaxis. We describe three pediatric AGS cases presenting exclusively with delayed respiratory symptoms, leading to diagnostic difficulty.

Case 1: A three-year-old girl with episodic cough and wheezing for eight-months was managed as poorly controlled asthma. Her mother noted symptoms occurring on days the child consumed dairy, although no immediate reactions were observed.

Case 2: A four-year-old boy experienced recurrent wheezing and cough for one-year, with symptoms occurring approximately two-hours after consuming red meat, dairy, or gelatine. Despite receiving optimal treatment, he experienced severe wheezing exacerbations.

Case 3: An 18-month-old boy had six-months of cough, sneezing, runny and itchy nose, occurring a few hours after dairy intake. He was treated for asthma and allergic-rhinitis with limited improvement.

All three children had a history of tick exposure, lacked other allergic manifestations, and initially tolerated dairy. Skin-prick-tests were positive for milk, beef, pork and gelatine. Alpha-gal specific IgE were 55.8 kUA/L, 36.6 kUA/L, and 0.16 kUA/L respectively, confirming the diagnosis of AGS. All three children markedly improved solely with a strict avoidance diet.

Conclusion: AGS may present exclusively with delayed-respiratory symptoms, mimicking poorly controlled asthma/allergic-rhinitis. Clinicians should consider AGS in children with delayed-onset respiratory symptoms that appear to be associated with ingestion of alpha-gal containing food, even in the absence of classical allergic features or previous tolerance of these foods.





ABSTRACT ID: PP 144

Title	When Alpha-Gal Hides: Atypical Paediatric Faces of Alpha-Gal Syndrome - A Case Series
Authors	Vinuri Chamathka Boralugoda ¹ , Tharindi Suriapperuma ² , Athula Weeraratne ³ , Sachith Mettananda ² , Nadisha Badanasinghe ¹
Affiliations	¹ Department of Medical Microbiology and Immunology, Faculty of Medicine, University of Kelaniya, Sri Lanka ² Department of Paediatrics, Faculty of Medicine, University of Kelaniya, Sri Lanka ³ District General Hospital, Chilaw, Sri Lanka

ABSTRACT

Introduction: Alpha-gal syndrome (AGS) is an IgE-mediated allergy resulting from sensitization to galactose-alpha-1,3-galactose. Although classically associated with delayed urticaria/ anaphylaxis following red meat ingestion, AGS can present with diverse and atypical presentations. We report six patients with atypical manifestations.

Case presentations: Case-1: A four-year-old boy with recurrent wheeze and cough for one year was treated as poorly-controlled asthma. Symptoms showed an inconsistent association with dairy and red meat consumption, without cutaneous manifestations.

Case-2: An 11-year-old boy with recurrent abdominal pain and altered bowel habits for one year was managed as irritable bowel syndrome; symptoms frequently followed dairy ingestion.

Case-3: An eight-year-old boy experienced brief episodes of urticaria for four months and was treated as chronic-spontaneous urticaria with poor response to standard treatment.

Case-4: A six-year-old boy developed anaphylaxis three hours after ingesting gummy bears while playing.

Case-5: An 18-year-old girl presented with anaphylaxis four hours following ingestion of fish roe; further history revealed delayed abdominal pain after dairy consumption.

Case-6: An 18-year-old girl was referred following 19 episodes of anaphylaxis since age of six years, with no identifiable trigger. All patients recalled a history of tick bites. Delayed-onset of symptoms and inconsistent reactions to alpha-gal-containing foods were noted. The diagnosis of AGS was confirmed by skin prick testing and specific IgE to alpha-gal. Elimination of the implicated food allergens led to complete resolution in all cases.

Conclusion: This case-series illustrates the broad and atypical spectrum of paediatric AGS, including respiratory, gastrointestinal, and unexplained anaphylactic presentations. Recognition of non-classical manifestations and unusual dietary triggers are key to early diagnosis, prevention of recurrent anaphylaxis and improve outcome.





ABSTRACT ID: PP 145

Title	Chikungunya Fever in the Paediatric Population – Lessons from the 2025 Outbreak in Sri Lanka
Authors	Aruni Hathamuna ¹ , Hemal Chandrasena ¹ , Chinthana Perera ¹ , Janaki Abeynayake ² , Indumini Gunatilake ¹ , Palitha Karunapema ¹ , Hasitha Tissera ¹ , Hasitha Tissera ¹
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ABSTRACT

Introduction: In hyperendemic Aedes-borne settings, co-circulation of arboviruses creates diagnostic challenges in children with acute febrile illness. In Sri Lanka the last chikungunya outbreak occurred over 16 years ago, suggesting that most of the current paediatric population lacks prior immunity. In 2025, multiple districts reported chikungunya outbreaks, complicating differentiation from dengue due to overlapping early clinical features and the absence of a point-of-care diagnostic test.

Objectives: To describe the epidemiology of chikungunya among children during the 2025 outbreak in Sri Lanka and highlight implications for clinical management in settings with cocirculating dengue.

Methods: As chikungunya is not routinely notifiable, an online event-based surveillance system was established in late 2024 to detect clusters of chikungunya-like illness. Blood samples from clinically suspected patients were tested at the Medical Research Institute using RT-PCR and IgM/IgG ELISA. Concurrent dengue testing supported differential diagnosis. Nationwide trends and clinical observations were analyzed to inform practical diagnostic and management approaches.

Results: Outbreaks were reported mainly from Jaffna (26%), Colombo (24%), Kandy (17%), Gampaha (9%), and Matara (7%). Children accounted for 15% of cases; among them 65% were male and 35% were female, with a reported peak age of 11–12 years. Infections were also reported among infants and neonates. A preliminary guideline was developed to support early diagnosis and management.

Conclusions: The outbreak highlighted the need for laboratory-supported diagnostic pathways and updated paediatric guidance. Early differentiation of co-circulating arboviruses is essential to optimize outcomes and strengthen surveillance for timely public health response.





ABSTRACT ID: PP 146

Title

Neonatal Abstinence Syndrome: A case series from Colombo-Sri Lanka

Authors

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ABSTRACT

Introduction: Neonatal Abstinence Syndrome (NAS) is an escalating global health challenge driven by rising illicit drug use during pregnancy. In South Asia, the condition remains significantly underreported and underdiagnosed due to the non-specificity of symptoms and limited access to toxicological testing. This case series explores the clinical complexities and systemic hurdles in managing NAS within a resource-limited setting.

Case Presentation: We report 23 neonates clinically diagnosed with NAS at two tertiary centers (De Zoysa Hospital for Women and Colombo North Teaching Hospital) in Sri Lanka over 18 months. All 23 mothers had a current or history of illicit substance use; however, only two were identified prior to conception. 16/23 (70%) of mothers were under 25 years. Five deliveries occurred outside hospitals, and 12/23 (52%) babies had low birth weight. 21 neonates manifested clinical symptoms within the first 72 hours of life. The most frequent symptoms were irritability (n=18), excessive high-pitched cry (n=16), jitteriness/tremors (n=21), and hypertonia (n=14). Of the 16 cases with positive toxicology screening, 50% were positive for morphine alone. 17/23 required pharmacological intervention (oral morphine) based on Modified Finnegan Score. 12/23 (52%) infants were placed in probation care.

Conclusion: NAS pose significant burden to health system of Sri Lanka. Comprehensive National Guideline on managing NAS is a timely need. Strengthening collaboration among the health, legal, and social sectors is vital to mitigate the long-term neurodevelopmental risks faced by these vulnerable infants.





ABSTRACT ID: PP 147

Title	Neonatal Sepsis and Meningitis Due to Elizabethkingia meningoseptica: Challenges in a Tertiary NICU
Authors	Aarushi Lall ¹ , Laxmi Kamath ¹
Affiliations	¹ Department of Paediatrics, Kasturba Medial College Mangalore, India

ABSTRACT

Introduction: An emerging cause of nosocomial neonatal infections is found to be Elizabethkingia meningoseptica. This pathogen belongs under the genus as aerobic bacillus in the genus Elizabethkingia. Apart from environment this opportunistic pathogen is found in oxygen tubings, water humidifiers, saline solutions. And is one of the fatal cause of neonatal deaths.

Here we discuss about neonates admitted in our tertiary care NICU - one with and CSF iso and another with bloodstream infection due to E. meningoseptica.

Case Presentation : Two preterm neonates in our tertiary NICU were found to have Elizabethkingia meningoseptica, both were initially managed for respiratory distress. One of them is late preterm male, who had late onset Klebsiella pneumonia sepsis later. Developed meningitis, CSF culture grew Elizabethkingia meningoseptica. Other one is, very preterm girl baby who had late onset culture proven, which succumbed despite targeted therapy.

Conclusion: This case series highlights the clinical course and the challenges in neonates. Early culture-based diagnosis, prompt therapy, and strict infection control practices are essential to improve survival in this vulnerable population.





ABSTRACT ID: PP 148

Title	Neonatal <i>Candida Ciferrii</i> Infections: An Emerging Rare Yeast Identified in Tertiary Nicu in South India
Authors	Aarushi Lall ¹
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ABSTRACT

Background : Candida infections have been on rise in ICU settings in recent trends , *Candida ciferrii* is very rare and emerging pathogen, with only few cases reported worldwide. Its identification has been challenging due to frequent misidentification and misclassification and much variable antifungal susceptibility, particularly resistance to azoles. Early recognition plays essential role in neonates, who are very vulnerable to invasive fungal infections.

Methods: We describe a case series of three neonates admitted to our tertiary-level NICU in South India in whom *Candida ciferrii* was identified over a 6-month period. Clinical presentation, laboratory findings, risk factors, source of isolation, antifungal susceptibility, treatment and outcomes were analysed.

Results : *Candida ciferrii* was identified in three newborns in tertiary level NICU , of which two had bloodstream infection and one had urinary tract infection. All neonates had identifiable risk factors, which included broad-spectrum antibiotic exposure and indwelling devices. The isolates demonstrated reduced susceptibility to fluconazole. Treatment response was favorable; neonates responded to treatment and showed negative follow up cultures and no recurrence was noted.

Conclusion: This case series highlights one of the very few documented neonatal clusters of *Candida ciferrii*. Given the organism's rarity, potential for misidentification, and azole resistance, early species-level diagnosis and susceptibility-guided therapy are crucial for improving outcomes. Reporting such cases contributes to the growing recognition of this emerging yeast in neonatal care and supports the need for global understanding and management of the emerging pathogen in NICU.





ABSTRACT ID: PP 149

Title	Two Rare Cases of Parathyroid Adenoma Presented as Lower Limb Deformities And Postoperatively Complicated With Hungry Bone Disease
Authors	Dilshan Wimalasena ¹ , Dilshan Wimalasena ¹ , Nimasha Wimalaguna ¹ , Rohan Wickramasinghe ¹ , Prasadi Walpola ¹ , Udari Ruvanpathirana ¹ , Shakila Dharmasiri ¹ , Rasitha Manathunge ¹ , Imalke Kankanararachchi ¹ , Dimarsha De Silva ¹
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ABSTRACT

Introduction: Primary hyperparathyroidism (PHPT) is extremely rare in children and adolescents. Parathyroid adenoma is the most common etiology for PHPT. Hungry bone syndrome (HBS) is an entity encountered in the postoperative period following parathyroid adenoma removal. We present two cases of PHPT presented as bone deformities and the management complicated by HBS.

Case Presentation: Patient A - A 13-year-old girl presented with a three-month history of abnormal gait, left-sided genu varum, leg-length discrepancy, and postural scoliosis. Investigations revealed hypercalcemia with elevated parathyroid hormone (PTH) levels. Neck ultrasonography and Tc-99m MIBI scan confirmed a parathyroid adenoma. She received preoperative cinacalcet and zoledronate, followed by surgical excision. Postoperatively, she developed symptomatic hypocalcemia requiring calcium gluconate, calcium, and vitamin D supplementation, with good recovery.

Patient B: A 14-year-old boy presented with abdominal pain, vomiting, and progressive bilateral genu varus, with a past iliopsoas avulsion fracture. Investigations showed hypercalcemia with elevated PTH levels. Preoperatively, he was managed with hyperhydration, loop diuretics, zoledronic acid, and cinacalcet. Imaging revealed a left lower parathyroid adenoma. During surgical excision, he developed intraoperative hypocalcemia, followed by postoperative neuro muscular symptoms, requiring calcium, vitamin D, and magnesium supplementation.

Conclusions: Paediatric PHPT is usually presented late with end-organ damage like our patients who had severe bone deformities. Prompt medical management with predication of postoperative hypocalcemia is needed before the definitive surgery. HBS is a life-threatening complication that we encountered in both patients. These patients require regular postoperative monitoring of calcium and PTH for long periods due to asymptomatic hypocalcemia and to detect recurrences.





ABSTRACT ID: PP 150

Title

Genetic Landscape of Paediatric Glycogen Storage Disease in Sri Lanka: A Whole-Exome Sequencing Study Reveals Predominant PYGL Variants And Novel Mutations

Authors

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ABSTRACT

Introduction: Glycogen Storage Disease (GSD) comprise a group of inherited metabolic disorders resulting from pathogenic variants affecting glycogen degradation.

Objectives: We aim to describe the genetic landscape of children with GSD referred to paediatric hepatology service in Sri Lanka (SL).

Methods: A retrospective review was performed for children with genetically confirmed GSDs (whole exome sequencing) at the Colombo North Centre for Liver Diseases, SL (2020–2025). Data were retrieved from the database following consent and institutional approval. Variants were classified using population frequency databases, in silico prediction algorithms, and ACMG–AMP criteria.

Results: A total of 16 children were genetically confirmed to have GSD. The median age was 2 years (range 1–13 years) and 8 (50%) were male. All were autosomal recessive in inheritance except one child with X-linked recessive GSD IXa. Common clinical presentations included hepatomegaly, abdominal distension, growth faltering, elevated transaminases, hypertriglyceridaemia, intermittent hypoglycaemia. Consanguinity was reported in 5 (33%). GSD VI (PYGL-related) was the most prevalent subtype (8/15), followed by GSD III (AGL; n=4), GSD I (G6PC1; n=1), and GSD IXa (PHKA2; n=1), GSD IXb (PHKB; n=1) AND GSD IXc (PHKG2; n=1). Twelve children were homozygous, three compound heterozygous, and one was male hemizygous for PHKA2. Six variants were classified as unknown variants (VUS), four were novel, and two children carried the recurrent PYGL p.Arg816Gln variant.

Conclusion: This first genetically characterised paediatric GSD cohort from SL demonstrates a predominance of PYGL-associated GSD VI and reveals both recurrent and novel variants contributing to phenotypic diversity.





ABSTRACT ID: PP 151

Title	Three Cases of Acute Necrotizing Encephalitis During an Influenza Outbreak in Southern Sri Lanka; Diagnosis and management in a low-resource setting
Authors	Dilshan Wimalasena ¹ , Dilshan Wimalasena ¹ , Nimasha Wimalaguna ¹ , Prasadi Walpola ¹ , Udari Ruvanpathirana ¹ , Shakila Dharmasiri ¹ , Thilina Munasinghe ¹
Affiliations	¹ National Hospital Galle, Sri Lanka

ABSTRACT

Introduction: Acute necrotizing encephalopathy of childhood (ANEC) is a rare, rapidly progressive encephalopathy characterized by symmetric necrotic lesions in the thalami and other deep brain structures and Influenza virus is the commonest etiology. It is believed to result from a cytokine storm causing blood–brain barrier disruption and secondary neuronal injury.

Case Presentation: We describe three children diagnosed with influenza A–associated ANEC during a seasonal outbreak in Southern SL. All three presented with acute febrile illness, followed by seizures and altered consciousness within 24–72 hours.

Case 1: A 1-year-old girl developed refractory seizures and dystonia requiring mechanical ventilation, high-dose methylprednisolone (IV MPNL), intravenous immunoglobulin (IVIG), and Tocilizumab. She had significant motor dysfunction requiring prolonged rehabilitation, to which she showed a dramatic response.

Case 2: A 5-year-old girl developed early encephalopathy with thalamic and dentate hypodensities on neuroimaging. She showed rapid clinical improvement after IV MPNL and IVIG. Her residual truncal ataxia and right lower limb spasticity significantly improved with an intense rehabilitation programme.

Case 3: A 6-year-old girl presented with seizures and posturing, and the MRI Brain showed classic bilateral thalamic lesions. She was initially given IV MPNL and IVIG. As she had a very poor response to the initial immune therapy combination, her management was escalated to 7 cycles of plasma exchange followed by IV Tocilizumab. Then she had intense inpatient rehabilitation programme resulting in improving her functional outcomes.

Conclusion: Timely identification, rapid immunomodulatory treatment and intense rehabilitation results in better outcomes of ANEC.





ABSTRACT ID: PP 152

Title	Precision Medicine in Paediatric Congenital Myasthenic Syndrome: Tailoring Therapy to Genetic Mutation
Authors	Dinithi Sewmini Gamage Naotunna ¹ , Vindya Subasinghe ¹ , Pyara Ratnayake ¹
Affiliations	¹ Lady Ridgeway Hospital for Children, Sri Lanka

ABSTRACT

Introduction: Congenital myasthenic syndromes (CMS) are rare, genetically heterogeneous disorders caused by pathogenic variants affecting proteins of the neuromuscular junction, leading to impaired neuromuscular transmission. We present three pediatric cases with distinct mutations, with overlapping phenotypes and response to salbutamol.

Case Presentation: Case 1: A 6-year-old girl presented with gross motor development delay, proximal weakness, ptosis and fatiguability. Nerve conduction studies with repetitive nerve stimulation are normal. Whole-exome sequencing identified compound homozygous pathogenic variants in the CHRNE gene

Case 2: A 4.5-year-old born to consanguineous parents, with a similar presentation to Case 1. Additionally, he had a history of bilateral vocal cord palsy requiring tracheostomy for 2.5 years. Whole-exome sequencing identified a homozygous likely pathogenic mutation in the AGRN gene.

Case 3: A 10-year-old boy with kyphoscoliosis and severe respiratory tract infection, with symptoms similar to case 1. His muscle biopsy suggested myopathy. Whole-exome sequencing identified compound heterozygous pathogenic variants in the DOK7 gene.

Conclusion: CMS should be suspected in patients presented with early onset weakness, especially associated with ptosis and fatiguability. A high index of suspicion is needed as routine tests such as Nerve conduction study and muscle biopsy could be misleading. Genetic testing is important for precise management, as the therapeutic agent depends on the genetic mutation.





ABSTRACT ID: PP 153

Title	Clinical and Molecular Characterisation of Children with Developmental and Epileptic Disorders: Findings from Whole Exome Sequencing
Authors	Damitha Liyanaarachchi ¹ , Vindya Subasinghe ² , Chandanamali Punchihewa ¹ , Anura Jayawardena ² , Pyara Rathnayake ²
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ABSTRACT

Introduction: Developmental and epileptic encephalopathies (DEE) are a heterogeneous group of severe neurodevelopmental disorders characterised by early-onset refractory seizures and developmental impairment. Advances in genomic sequencing have improved diagnostic yield, enabling precise molecular classification and guiding management. This case series describes the clinical and genetic spectrum of DEE identified through whole exome sequencing (WES) in a paediatric cohort from Sri Lanka.

Case Presentation: We present a case series of eight children (6 females, 2 males) with suspected DEE or closely related neurodevelopmental epileptic disorders evaluated using WES. Age at presentation ranged from 3 months to 11 years. Core clinical features included early onset refractory epilepsy, global developmental delay or regression, hypotonia, infantile spasms, encephalopathic EEG patterns, and variable dysmorphism. Neuroimaging ranged from normal to diffuse cerebral or white matter abnormalities. Pathogenic or likely pathogenic variants were identified in DEE-associated genes, including KCNQ2, SCN8A, SPTAN1, IQSEC2, DNM1, ATP6V1A, EEF1A2, and ATP1A3. Variant types included de novo and inherited missense variants, nonsense variants, frameshift variants, and canonical splice-site variants, predominantly affecting autosomal dominant genes, with occasional autosomal recessive inheritance. Several cases demonstrated overlapping syndromic or metabolic features, underscoring phenotypic complexity.

Conclusions: This series highlights the broad phenotypic and genetic spectrum of DEE, the utility of WES in achieving molecular diagnoses, and the importance of precise genotype–phenotype correlation. Early genetic diagnosis informs prognosis, treatment strategies, and family counselling, emphasising the need for genomic testing in children with unexplained epileptic encephalopathy.





ABSTRACT ID: PP 154

Title	Adverse cardiovascular effects of Pulse Methylprednisolone therapy- A Case Series
Authors	Saroj Kumar Tripathy ¹ , Sarthak Das ¹ , Mahalaksmi T. ¹
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ABSTRACT

Introduction: Corticosteroids are potent anti-inflammatory agents used as a mainstay of therapy in most rheumatologic disorders, inflammatory, neurologic, and other conditions. High-dose corticosteroids administered as intermittent intravenous boluses for 3–5 days constitute pulse therapy. Corticosteroids have long been used, and their expected side effects are well known. However, there is limited literature on heart rate variability and its use. The objective of this study was to evaluate cardiovascular adverse events associated with pulse methylprednisolone therapy.

Case Report: This was a retrospective review of case records of hospitalized children 1 to 14 years of age who received pulse methylprednisolone therapy from 1st January 2025 to 31st December 2025. Results showed all 12 children who received intravenous methylprednisolone had slowing of heart rate with 7 (58.3%) children developed bradycardia with sinus rhythm. Interestingly, the mean reduction in HR of all cases was found to 56/min. as compared to baseline. The onset ranged from 4 to 68 hours after starting therapy, most commonly within the first 48 hours. The lowest heart rates recorded ranged between 48 beats per minute. The duration of bradycardia varied from 24 to 104 hours.. All cases were asymptomatic and resolved spontaneously without stopping steroid therapy or requiring medical intervention. Only one hild developed Stage II hypertension.

Conclusion: Pulse methylprednisolone therapy in children may be associated with transient and asymptomatic bradycardia, especially at higher doses. Although generally benign and self-limiting, careful heart rate monitoring during and shortly after therapy is recommended to ensure patient safety.





ABSTRACT ID: PP 155

Title	Umbilical Cord Hernia in Neonates: A Retrospective Case Series and Diagnostic Challenge
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ABSTRACT

Introduction: Umbilical cord hernia (UCH) is an uncommon congenital abdominal wall defect that is frequently misdiagnosed as omphalocele minor, resulting in underrecognition and risk of preventable complications. Although considered a benign anomaly with favourable outcomes, delayed or missed diagnosis may lead to iatrogenic visceral injury at birth. We present a caseseries highlighting the diagnostic challenges, spectrum of contents, and uncommon associations of UCH.

Case Presentation: A retrospective review was conducted of six neonates managed over four years at a tertiary pediatric surgical center. All presented within the first three days of life with membrane-covered herniation at the base of the umbilical cord; none were detected antenatally. Meckel's diverticulum was the most frequent sac content (50%), with additional findings including appendix, caecum, terminal ileum, and a rare case of isolated hepatic herniation. One neonate presented with intestinal obstruction and perforation, while another developed necrotizing enterocolitis requiring ileostomy and intensive care support. An unusual association with tracheoesophageal fistula and esophageal atresia was observed. All patients underwent primary repair via an umbilical approach, and no recurrences were noted on followup.

Conclusions: UCH exhibits diverse intraoperative findings and may present with rare associations. Antenatal recognition remains limited but is crucial to prevent cord-clamping injuries. Careful clinical differentiation from omphalocele is essential, as timely surgical management yields excellent outcomes.





ABSTRACT ID: PP 156

Title	Surgical Management of Two Cases of Persistent Müllerian Duct Syndrome Presenting as Bilateral Non-palpable Undescended Testes
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ABSTRACT

Introduction: Persistent Müllerian Duct Syndrome (PMDS) is a rare disorder of male sexual differentiation characterized by the retention of Müllerian structures in 46,XY males. Surgical management poses unique challenges due to the proximity of Müllerian remnants to vas deferens and testicular vessels. We present two cases of PMDS with bilateral undescended testes, successfully managed with laparoscopic hysterectomy and orchidopexy.

Methods: Two boys aged 6 and 8 years presented with bilateral non-palpable testes. Diagnostic laparoscopy confirmed intra-abdominal testes alongside a uterus and fallopian tubes. Careful dissection was performed to mobilize the testes and excise the Müllerian structures without compromising the vas deferens and vascular supply. Laparoscopic hysterectomy with bilateral salpingectomy was undertaken, followed by single-stage laparoscopic-assisted orchidopexy.

Results: In both cases, Müllerian remnants were densely adherent to the vasa and epididymis. Sharp dissection with bipolar cautery allowed successful separation. The testes were mobilized on long vascular pedicles and brought down to the scrotum without tension. Postoperative recovery was uneventful. At 6-month follow-up, both testes were well-positioned, with normal size and perfusion on Doppler ultrasonography.

Conclusion: Laparoscopic management of PMDS enables excellent visualization for meticulous dissection, safe removal of Müllerian remnants, and tension-free orchidopexy. Early surgical intervention optimizes testicular outcomes and reduces long-term complications.





ABSTRACT ID: PP 157

Title	Recurrent Subcutaneous Facial Emphysema Secondary to Valsalva Manoeuvre in a Child with ADHD
Authors	A.A.G.P. Amarasinghe ¹ , Rasika Gunapala ¹
Affiliations	¹ Lady Ridgeway Hospital for Children, Sri Lanka

ABSTRACT

Introduction: Subcutaneous facial emphysema in children is uncommon and is typically associated with trauma, dental procedures or infection. Retrograde air insufflation through Stensen's duct following a forceful Valsalva manoeuvre is a rare non-traumatic mechanism. Early recognition is essential to prevent unnecessary investigations and exclude serious complications such as pneumomediastinum.

Case Presentation: A 12-year-old male with attention deficit hyperactivity disorder (ADHD) presented with sudden-onset, painless bilateral facial swelling and trismus. There were similar three episodes diagnosed to be subcutaneous emphysema, managed conservatively and the exact cause was not identified. There was no history of trauma, dental intervention or infection. Examination revealed non-tender swelling over the parotid and periauricular regions. Plain Xray showed air tracking over the parotid gland. Computed tomography confirmed emphysema surrounding the parotid glands, within the parotid duct without mediastinal extension. Repeated questioning child admitted that he has forcefully blowed against a pipe with a purpose of making sound just prior to the onset of the symptoms. Conservative management, resulted in complete resolution within 72 hours.

Conclusion: Valsalva-induced retrograde air insufflation via the parotid duct is a rare but benign cause of paediatric facial emphysema. Cross-sectional imaging confirms diagnosis and excludes life-threatening complications. Behavioural counselling is essential to prevent recurrence.





ABSTRACT ID: PP 158

Title	Refractory Severe Methemoglobinemia Following Propanil Poisoning Successfully Treated with Red Blood Cell Exchange Transfusion: A Case Report
Authors	W U C J Wijerathne ¹ , Dorren Rathnayake ¹ , Suresh Meegaswatta ¹ , Sampath Senevirathne ¹
Affiliations	¹ Teaching Hospital Kurunegala, Sri Lanka

ABSTRACT

Introduction: Methemoglobinemia is a rare but potentially life-threatening condition caused by oxidation of hemoglobin iron from the ferrous (Fe²⁺) to the ferric (Fe³⁺) state, impairing oxygen delivery and causing tissue hypoxia. Acquired forms are commonly associated with drugs and chemicals, while herbicide-induced cases are infrequently reported. Methylene blue is the first-line therapy; however, severe cases may be refractory, requiring alternative interventions. We report a case of severe propanil-induced methemoglobinemia successfully managed with red blood cell exchange transfusion.

Case Presentation: A previously healthy 13-year-old girl presented with vomiting, headache, tachypnea and profound cyanosis for 5 hours duration. Pulse oximetry showed persistently low oxygen saturation (~65%) despite 100% oxygen. Dark brown venous blood was noted and arterial blood gas analysis revealed paradoxically high PaO values. She denied toxin exposure; however on physical examination multiple self-inflicted injuries were noted and on further questioning, she admitted deliberate ingestion of propanil, an acetanilide herbicide, 12 hours prior. She received intravenous methylene blue (cumulative 6 mg/kg) and oral ascorbic acid with adequate hydration, but clinical condition was progressively deteriorated. Serum methemoglobin remained 70%, and she developed confusion with a generalized convulsion. Due to refractory disease, urgent red blood cell exchange transfusion was performed. After three cycles, she was gradually recovered without end-organ dysfunction.

Conclusion: Herbicide-induced methemoglobinemia, although rare, should be considered in patients presenting with cyanosis unresponsive to oxygen therapy. This case demonstrates that severe methemoglobinemia may be refractory to methylene blue therapy and red blood cell exchange transfusion can be a life-saving intervention.





ABSTRACT ID: PP 159

Title	Case of Extensive inferior Vena Cava, Renal and Hepatic vein thrombosis in a previously healthy child.
Authors	Jathun Arachchige Sakura Dilhara Madhubhashini ¹ , Deepal Perera ¹ , B.D.L.A.Alexander ¹ , W. M.D.R.Weerakoon ¹ , D. A. Y. Muduwan ¹
Affiliations	¹ Lady Ridgeway Hospital for Children, Sri Lanka

ABSTRACT

Background: Pediatric venous thromboembolism is rare and usually associated with identifiable provocation. We report a complex case of multi-organ venous thrombosis mimicking acute infectious illness.

Case Presentation: A previously healthy 6 year old child presented with a 2 day history of fever, abdominal pain, headache, and vomiting. Initially managed as possible Dengue Fever, but child rapidly deteriorated with worsening of abdominal pain and distension, reduced urine output with oedema, fever, and altered sensorium. Biochemical evidence of acute kidney injury and adrenal crisis with metabolic derangement and hypoglycemia. Urgent ultrasonography and CT abdomen revealed extensive thrombosis of the intraabdominal Inferior Vena Cava (IVC), extending into the right hepatic vein and left renal vein, bilateral common iliac and right external iliac veins, evidence of bilateral adrenal infarction. Extended investigations done including genetics. Thrombophilia gene studies were negative. Paroxysmal nocturnal hemoglobinuria, sickle disease excluded. Autoimmune screening ANA came as highly positive, but dsDNA negative. Vasculitis and APLS excluded. Management optimized with multidisciplinary team comprising Pediatric Endocrinology, Hematology, Nephrology, Rheumatology and vascular surgery. Timely anticoagulation, coupled with aggressive management of adrenal crisis and acute kidney injury, led to a successful recovery.

Conclusion: This case emphasizes the need for high clinical suspicion of extensive venous thrombosis with severe abdominal pain and rapid deterioration, even without provocative factors. Early imaging and prompt initiation of anticoagulation are crucial to prevent irreversible organ damage and mortality.





ABSTRACT ID: PP 160

Title	Acute Chemical Pneumonitis in a 6-Year-Old Child After Repeated Cologne Exposure
Authors	Ajantha Vikum Abeysekara ¹ , Damitha Chandradasa ¹
Affiliations	¹ Teaching Hospital Anuradhapura, Sri Lanka

ABSTRACT

Background: Inhalation of household fragrances and volatile organic compounds can cause respiratory irritation and, rarely, chemical pneumonitis. Children are particularly vulnerable due to smaller airway caliber.

Case Presentation: A previously healthy 6-year-old girl presented with sudden onset shortness of breath following repeated exposure to cologne fumes in a confined indoor environment. She used it during her play activities. There were no clinical features suggestive of foreign body aspiration or anaphylaxis. She developed hypoxemic respiratory failure requiring ICU care. Management included oxygen therapy, bronchodilators, systemic corticosteroids, and supportive care. The child improved clinically and was discharged with follow-up.

Conclusion: Fragrance exposure may result in significant respiratory injury in children even without prior reactive airway disease. Early recognition and supportive management are essential.





ABSTRACT ID: PP 161

Title	Severe bradycardia in a 12-year-old with spastic quadriplegic cerebral palsy (GMFCS V) associated with oral baclofen therapy
Authors	Ajantha Vikum Abeysekara ¹ , Damitha Chandradasa ¹ , Yuresha Surangani ¹
Affiliations	¹ Teaching Hospital Anuradhapura, Sri Lanka

ABSTRACT

Background: Baclofen is widely used to treat spasticity. Although central nervous system depression is the most commonly described manifestation of baclofen toxicity, cardiovascular effects including bradycardia and conduction abnormalities have been reported.

Case A: 12-year-old boy with spastic quadriplegic cerebral palsy (GMFCS V) on multiple antispastic medications (oral baclofen, benzhexol/trihexyphenidyl, and Syndopa) was found to have severe bradycardia and poor peripheral perfusion during routine admission for nasogastric (NG) tube change. Blood pressure was noted to be around 50th centile. There was no history of recent infection, dehydration, or medication dose change. Initial ECG showed sinus arrhythmia. Laboratory investigations were normal. Baclofen was omitted and within 6 to 8 hours heart rate returned to baseline with improved perfusion.

Conclusion: Baclofen toxicity or drug sensitivity may present with cardiovascular depression. Early recognition and withdrawal of the drug can result in rapid clinical improvement.





ABSTRACT ID: PP 162

Title	Hematocolpos with Imperforate Hymen in Early Adolescence Presenting as Acute Urinary Retention: A Rare Pediatric Surgical Emergency
Authors	Dilshan Wimalasena ¹ , Gimhanie Geethaswari ¹ , Tharukee Randula ¹ , Sachini Rathnayake ¹ , Ashoka Panadare ¹ , Asanga Rajapakshe ¹
Affiliations	¹ Base Hospital Wathupitiwala, Sri Lanka

ABSTRACT

Introduction: An imperforate hymen is a rare congenital condition that typically presents at puberty with cyclical abdominal pain and primary amenorrhea, and occasionally acute urinary retention due to hematocolpos. We report a young girl who presented to a Paediatric unit with acute urinary retention without preceding cyclical pain, highlighting the importance of careful examination.

Case Presentation: A 12-year-old previously healthy girl presented with acute urinary retention for 24 hours, preceded by two days of dribbling and difficulty initiating micturition. She complained of lower abdominal pain with visible distension. She had not yet attained menarche and denied any history of cyclical abdominal pain. There were no neurological symptoms, and systemic examination was unremarkable. Local examination revealed a tense, bluish, 3×3 cm bulge inferior to the urethral meatus, with the vaginal opening not visible. An urgent abdominal ultrasound demonstrated an 8×9 cm homogeneous cystic lesion located posterior to the bladder, communicating with the cervix, suggestive of hematocolpos. Following urethral catheterization, 750 mL of urine was drained, relieving the acute retention.

Based on clinical and ultrasonographic findings, a diagnosis of imperforate hymen with hematocolpos was made. An urgent Gynecology referral was done and surgical intervention was performed under general Anesthesia. A cruciate incision was made over the bulging hymen, evacuating approximately 400mL of retained blood-stained fluid. The patient recovered uneventfully.

Conclusion: Hematocolpos should be considered in adolescent girls with acute urinary retention. Although Magnetic Resonance Imaging is ideal, timely clinical assessment and ultrasonography enabled successful diagnosis and management in a low-resource hospital setting.





ABSTRACT ID: PP 163

Title	A Paediatric Case of Deliberate Organophosphate Poisoning with Cardiac Complications
Authors	Maharoff Ahameth Nafrin Ali ¹ , Sithy Zulaiha Zuhair ¹ , P.M.Arshath Ahamed ¹
Affiliations	¹ Base Hospital Sammanthurai, Sri Lanka

ABSTRACT

Introduction: Organophosphate (OP) poisoning is a well recognized phenomenon in the farming community with many documented complications. However, deliberate ingestion of organophosphates in paediatric population is almost unheard of. This is a case of OP poisoning in a child leading to cardiac complications.

Case Presentation: A 12 year old boy was brought to the emergency unit by parents due to abnormal behavior and foul smelling vomiting. On admission the patient confessed to having ingested 15ml of OP containing insecticide one hour ago, with suicidal intention. He had profuse sweating, vomiting, excessive salivation, and dizziness, although consciousness was preserved. Examination revealed a heart rate of 40bpm and pin-point pupils.

Gastric lavage was done and activated charcoal administered.

He was started on atropine infusion under close monitoring. Over the next two hours, his heart rate increased, but ECG showed a new right bundle branch block. Cholinergic symptoms were reversed after 6 hours but ECG changes persisted. After atropinisation, the patient was monitored with serial ECGs, which showed complete resolution of the bundle branch block within the next 24 hours.

He did not have any residual symptoms, and was free of intermediate syndrome. Following -8mental health evaluation and counseling, he was discharged with no further complications.

Follow up was arranged in paediatric and psychiatry clinic.

Conclusion: This case demonstrates rare possibility of life threatening presentations and complications of acute poisoning in the paediatric population. High index of clinical suspicion, early recognition and prompt management are essential for a positive outcome.





ABSTRACT ID: PP 164

Title	Delayed Recurrent Extrapyrarnidal Syndrome in Metoclopramide Poisoning in Paediatric : A Rural Experience
Authors	Muhammad Aiman Shuib ¹ , Hasdilla Yaakub ¹ , Nor Azlina Mohd Radzi ¹
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ABSTRACT

Metoclopramide poisoning can precipitate acute extrapyramidal symptoms (EPS), typically occurring shortly after ingestion. Delayed recurrent dystonic reactions, however, are uncommon. This case illustrates an unusual presentation of oculogyric crisis occurring eighteen-hour post-ingestion. A healthy 3-year-9-month-old girl unintentionally ingested 170mg (12.7mg/kg) of metoclopramide tablets. Although she vomited soon after ingestion, she developed 30-minutes neurological symptoms: torticollis with blank stare of eyes, arched spine, and limb stiffness eighteen-hour later. She was haemodynamically stable with a Glasgow Coma Scale score of 15/15. Early diazepam resulted in transient symptoms resolution; However, recurred occurred during transfer, necessitating procyclidine administered. Consultations with paediatric neurology, clinical toxicologist, and the national poison centre were made. Benzhexol was initiated for symptoms control. Laboratory investigations, including urine toxicology, were unremarkable. Safeguarding assessment exclude non-accidental injury. She was admitted for 48-hour observation with no recurrence and discharged without neurological sequelae. EPS requires a systemic and timely approach. First-line therapy for acute dystonic reactions typically result in rapid symptom resolution, if unavailable, second-line therapies should be considered. Early consultation with emergency physician, paediatrician, clinical toxicologist and national poison control centers are invaluable with information including: substance's pharmacodynamics and pharmacokinetics, long-term sequelae, antidotes or supportive management-guides clinical decision-making. Important to consider brain imaging to rule out intracranial pathology, whereas electroencephalography to verify normal cortical activity. Delayed EPS following metoclopramide poisoning can be potentially lifethreatening in children. Early recognition, multidisciplinary collaboration, and supportivemanagement can result in full recovery. Caregiver education and early medical attention remain critical to reducing poisoning incidents.





ABSTRACT ID: PP 165

Title	Ventricular Tachycardia Storm in a Case of Pediatric Cardiac Sarcoidosis: A Case Report
Authors	Deepanjan Bhattacharya ¹ , Bapi Barman ¹ , Sanjeev S Mukherjee ¹ , Rohit Bhowmick ¹
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ABSTRACT

Introduction: Electrical storm (ES) is a medical emergency characterized by at least 3 repetitive episodes of sustained ventricular arrhythmias (VAs) within a 24-h period. Cardiac sarcoidosis is an infiltrative cardiomyopathy that results from granulomatous inflammation of the myocardium and may present with high-grade conduction disease, ventricular arrhythmias, and right or left ventricular dysfunction.

Case: A 7-year-old boy, presented with intermittent palpitations and chest tightness, beginning at the age of 6 years, with documented RBBB tachycardia with right axis deviation. He was evaluated elsewhere where he was diagnosed as cardiac sarcoidosis based on increased uptake on Ga-68 DOTA PET CT. Cardiac MRI showed good biventricular function with no scarring. He underwent radiofrequency ablation of left anterior fascicular VT, followed by pacemaker implantation for AV nodal disease. Whole genome analysis did not reveal any pathogenic mutation.

Now he presented with palpitations with syncope and ECG showed wide complex tachycardia with RBBB and left axis deviation. After cardioversion, he was started on amiodarone, mexiletene and propranolol, with calcium and magnesium supplementation. In view of refractory electrical storm, pulse methylprednisolone was added, followed by bilateral stellate ganglion blockade with 0.5% Bupivacaine under USG guidance. Subsequently, he remained arrhythmia free, and was discharged on tapering steroids and oral anti-arrhythmic medication.

Conclusion: Electrical storm is a life-threatening emergency with mortality rates approaching 60%, with infiltrative cardiomyopathies including sarcoidosis being a differential diagnosis. Stellate ganglion block is an effective tool for management with an efficacy of almost 60%, especially in cases which are drug refractory.





ABSTRACT ID: PP 166

Title	Acute Tunnel Vision Following High-Dose Tranexamic Acid Administration in a Pediatric Patient: A Case Report
Authors	Wickramasooriya Arachchige Chamodi Madushani Shanika Wijerathne ¹ , Abeykoon Jalath Rathnayake Osman Smith ¹ , Neel Kannangara ¹
Affiliations	¹ DGH - Kegalle, Sri Lanka

ABSTRACT

Introduction: Tranexamic acid (TXA) is an antifibrinolytic agent widely used to reduce bleeding in surgical and trauma settings. While generally well-tolerated, neurological complications including visual disturbances have been reported with high-dose administration, particularly in pediatric populations who may exhibit increased sensitivity to its effects.

Case Presentation: An 11-year-old girl (35 kg) received intravenous TXA 30 mg/kg for menorrhagia, triple the standard recommended dose of 10 mg/kg. Approximately 10 minutes post-administration, she developed sudden-onset tunnel vision, describing her visual field as "looking through a straw." She remained alert and oriented with stable vital signs throughout. Neurological examination revealed bilateral peripheral visual field defects with preserved central vision. Pupils were equal, reactive, with intact accommodation. No other neurological deficits were observed. The patient underwent continuous neurological monitoring without additional pharmacological interventions. Within 60 minutes of symptom onset, tunnel vision resolved completely with full restoration of normal peripheral vision. Follow-up ophthalmological examination at 24 hours demonstrated no residual visual defects.

Conclusion: This case demonstrates a rare but reversible neurological complication of high-dose TXA in pediatric patients. The mechanism likely involves TXA crossing the blood-brain barrier and interfering with GABA neurotransmission in visual processing centers. The rapid onset and spontaneous resolution suggest a dose-dependent, temporary effect. Healthcare providers should maintain strict adherence to dosing guidelines and recognize potential visual disturbances promptly to ensure optimal patient safety.





ABSTRACT ID: PP 167

Title	A Rare Case of Undisclosed Substance Abuse by a Child Detected Clinically Due to Dips in Oxygen Saturation While Sleeping
Authors	M. S. Larif ¹ , W G A Dinushika ¹ , T A S M Gunawardhana ¹ , W P N Yashika ¹ , Hemali De Silva ¹
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ABSTRACT

Introduction: Substance use disorder (SUD), traditionally viewed as an adolescent or adult pathology is emerging in the pediatric population, representing a growing clinical and public health crisis worldwide.

Case Presentation: A 11 year old schoolboy presenting with hyperventilation and carpopedal spasms following moderate exertion. He was a known child with bronchial asthma who was off inhalers for one and a half years. There was no history of obstructive sleep apnoea. The carpopedal spasms and shortness of breath settled soon after admission and the lungs were clear and there was no respiratory distress. His investigations: Rbs 103, Corrected Ca 2.4 (N), Total Ca 2.5 Phosphorus 1.4 (N), CPK 180 (0-145), VBG Normal, Ast 23, ALT 12, K 3.8, Na 143, Cl 107, Urea 28.7, S Creat 52.2 (N).

He was started on face mask oxygen as he had oxygen saturation dips as low as 63% as soon as he sleeps, which rose to 100% while awake. A urine toxicology screen was done as his physical findings did not correlate with the drop in saturation and was found to be positive for Barbiturates & MDMA. He confessed to substance abuse the next day and made a full recovery.

Conclusion: Early detection of undisclosed substance abuse through clinical vigilance can prevent potentially fatal respiratory failure and allow for the timely mobilization of multidisciplinary resources, such as Toxicology and Pharmacovigilance to identify the agent, social services to ensure the safety of the child's environment and developmental psychiatry to address the root cause of the ingestion.





ABSTRACT ID: PP 168

Title	Nuances of Atypical Kawasaki disease in infancy
Authors	Rohan Wickramasinghe ¹ , Udari Ruwanpathirana ² , Pavithra Madushani ¹ , Hiruni Udara ¹
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ABSTRACT

Introduction: Kawasaki disease is an acute self-limiting febrile vasculitis of unknown aetiology which is commonly seen in children six months to five years of age. It is characterized by inflammation of medium sized arteries with a predilection for coronary arteries and the most devastating complication is, coronary artery dilatation and aneurysm formation

Case Presentation: A three-month-old female infant previously thriving well presenting with a high-grade fever for over five days, a generalized erythematous macular rash, subtle oral mucosal redness and dry, cracked lips. No strawberry tongue observed. Other major criteria like lymphadenopathy, conjunctival suffusion or extremity changes were not observed. Infant appeared acutely ill. Biochemical findings were not strongly supportive of the diagnosis, with only a marginally elevated CRP of 40 mg/L and hemoglobin of 10.4 g/dL, providing partial evidence suggestive of an atypical presentation. However, the 2D Echocardiogram demonstrated marginal dilatation (Z score – 2.0-2.5) of LMCA, LAD and RCA consistent with early coronary involvement. These findings were suggestive of atypical Kawasaki and treatment started with IV immunoglobulin and a course of oral aspirin and oral steroids. With treatment infant recovered completely along with normalization of inflammatory markers and 2D echo at four weeks showed dilated RCA only.

Conclusion: Kawasaki disease in children less than six months is rare, and the clinical presentations can be subtle and nonspecific. Therefore, is a diagnostic challenge and need to maintain high index of suspicion in prolonged febrile illness with no clear source of infection. Laboratory and echocardiographic evaluation are essential for diagnosis.





ABSTRACT ID: PP 169

Title	Ovarian Inguinal Hernia in a Neonate
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ABSTRACT

Introduction: Ovarian-containing inguinal hernia is an uncommon but clinically significant condition in female neonates, arising from persistence of the canal of Nuck. Compared with bowel-containing hernias, ovarian herniation carries a markedly higher risk of incarceration, torsion, and vascular compromise because of the ovary's relative bulk and restricted mobility within the inguinal canal. Delayed diagnosis or management may result in ovarian necrosis, with potential long-term consequences for endocrine function and future fertility. Early recognition and timely surgical intervention are therefore essential, even in asymptomatic infants.

Case Report: A 20-day-old term female neonate presented with a firm, non-reducible mass in the left inguinal region, first noticed by the mother on day 18 of life. The infant was clinically stable, afebrile, feeding well, and showed no signs of pain, bowel obstruction, or systemic illness. Examination revealed a well-defined, non-tender inguinal swelling measuring approximately 1.5 × 1.5 cm, with a soft, non-distended abdomen and normal external genitalia. Ultrasonography demonstrated absence of the left ovary from the pelvis with herniation of the ovary into the left inguinal canal, confirming an ovarian-containing inguinal hernia. The patient was urgently referred to paediatric surgery for definitive management aimed at ovarian preservation.

Discussion: This case highlights the importance of evaluation of inguinal masses in female neonates. Ovarian inguinal hernias should be considered surgical emergencies, as torsion and irreversible ischemic injury may occur even in clinically well infants. Prompt ultrasonographic assessment and early surgical referral are critical to optimize outcomes and preserve ovarian viability and overall outcomes.





ABSTRACT ID: PP 170

Title	Common Variable Immunodeficiency 12 (NFKB 1 variant) presenting as autoimmune cytopenia, mimicking ALPS
Authors	Lelwala Godakandage Chaminda Prasad Godakanda ¹ , Maheshika Navarathne ¹ , Sarojini Viknarajah ¹ , Rohan Wickramasinghe ² , Viraj Thilakarathna ³ , Shenali Wijetunge ¹ , Ayesha Narangoda ²
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ABSTRACT

Introduction: Common variable immune deficiency (CVID) is a heterogeneous disorder presenting with various clinical manifestations, including autoimmune cytopenias, lymphoproliferation, and granulomas. Heterozygous NFKB1 variants are considered the most common monogenic aetiologies of common variable immunodeficiency (CVID). (NF- κ B) It is crucial in several biological processes, including adaptive immune response, proliferation, cell survival, and inflammation.

Case: A 13-year-old previously well boy, 3rd born to nonconsanguineous healthy parents, presented with recurrent facial abscess, cervical lymphadenopathy, and was accidentally found to have pancytopenia in a full blood count. Later presented with buttock abscess, generalized lymphadenopathy & hepatosplenomegaly.

He had pancytopenia without any abnormal cells in blood picture, and elevated inflammatory markers. His renal and liver functions were normal. HIV, virology panel, and Mantoux/ TB genexpert tests were negative. Chest X-ray normal, USS abdomen showed moderate hepatosplenomegaly with suspicious lymph nodes. Lymph node biopsy was reactive, bone marrow biopsy, trephine biopsy, immunoglobulin levels, Nitroblue Tetrazolium test were normal, and DAT - Positive. No abnormalities were picked in Upper and Lower GI endoscopies. Flow cytometry findings are suggestive of autoimmune lymphoproliferative syndrome. Genetics identified in the NFKB1 gene NM_003998.4 splice acceptor variant (CVID 12)

Progress: Child responds to IVIG, steroids, & Immunosuppressive therapy

Discussion: Clinical features are varied depending on the pathogenic variant in CVID. CVID12 is an autosomal dominant complex immunologic disorder with multisystem involvement & associated with autoimmunity. Diagnosis was aided by a basic immunologic panel & genetic testing. Management include regular IVIG, steroids & immunosuppression.





ABSTRACT ID: PP 171

Title	Autosomal dominant chronic mucocutaneous candidiasis caused by STAT1 gain-of-function mutation in a Sri Lankan child
Authors	Sagarika Priyadarshani ¹ , Prranavethya Sivakumar ¹ , Priyanga Padmasiri ¹ , Tharindi Suriapperuma ² , Wathsala Hathagoda ³ , Sachith Mettananda ²
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ABSTRACT

Introduction: Chronic mucocutaneous candidiasis(CMC) is characterised by recurrent or persistent Candida infections of the skin, nails and mucous membranes, and is frequently associated with underlying inborn errors of immunity. The diagnosis of CMC requires genetic confirmation; therefore, it is challenging in resource-limited settings.

Case presentation: A 16-month-old boy, the third-born child of non-consanguineous parents with no significant family history, presented with recurrent oropharyngeal candidiasis since 8 months of age. Despite repeated courses of topical and systemic antifungal therapy, his clinical response had been suboptimal. On examination, he was undernourished and had extensive oral candidiasis, nail dystrophy and features of bronchopneumonia. Inflammatory markers were elevated, and chest radiography confirmed bronchopneumonia. He was treated with fluconazole along with broad-spectrum intravenous antibiotics. Due to treatment-resistant candidiasis and poorly resolving pneumonia, an underlying immunodeficiency was suspected. Secondary causes of immunodeficiency were excluded. Flow cytometry demonstrated mild natural killer (NK) cell deficiency with otherwise normal immune parameters. Upper gastrointestinal endoscopy revealed oral and extensive oesophageal candidiasis with involvement of the stomach and duodenum. Based on the clinical presentation, chronic mucocutaneous candidiasis was suspected. Whole exome sequencing identified a heterozygous gain-of-function mutation in the STAT1 gene, confirming the diagnosis of CMC.

Conclusion: Persistent or recurrent treatment-refractory candidiasis beyond infancy should prompt evaluation for inborn errors of immunity. Early genetic diagnosis of STAT1 gain-of-function mutation-associated CMC is important to guide long-term management and surveillance for systemic complications.





ABSTRACT ID: PP 172

Title	Novel G6PC3 Missense Variant of Uncertain Significance in a Patient with Phenotypic Features of Severe Congenital Neutropenia Type 4
Authors	Deepthi Tennakoon ¹ , Dula Alwis ¹ , Nimanthi Rathnayaka ¹ , Vasana Kiridana ¹ , Pathum Dissanayake ¹ , Aanjeli Wimalasiri ¹ , Thushara Priyawansha ²
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ABSTRACT

Introduction: Severe Congenital Neutropenia Type 4, is a rare autosomal recessive disorder caused by G6PC3 deficiency. We report a 5-year-old boy presenting with clinical features consistent with SCN4 in whom a novel homozygous missense variant in the G6PC3 gene was identified. This case emphasizes the importance of detailed phenotypic analysis in evaluating novel genetic variants and expands the known genotypic spectrum of SCN4.

Case Presentation: A 5-year-old boy, the third child of healthy non-consanguineous parents, presented with recurrent infections since infancy, including urinary tract, respiratory, parotid abscess and sepsis. He was born at term (3.1kg) with neonatal complications involving meconium aspiration syndrome and secondary sepsis. Moderate to severe neutropenia was identified at 2 months and has persisted since. Immunological evaluation revealed decreased T-cell subsets (CD19, CD4, CD8) despite normal immunoglobulins. Extra-hematological manifestations included prognathism, flat nasal bridge, low hairline, distended superficial veins on the lower limbs, atrial septal defect, cylindrical bronchiectasis, bilateral inguinal hernia, leftsided undescended testis, small joint arthritis, failure to thrive, and chronic diarrhoea. Molecular testing identified a novel homozygous missense variant in the G6PC3 gene. Treatment with Empagliflozin was initiated with successful outcome.

Conclusion: This case reports a novel G6PC3 missense variant in a patient with clinical and laboratory features strongly consistent with SCN4. It highlights the broad spectrum of clinical manifestations associated with G6PC3 deficiency and emphasizes the importance of considering this diagnosis in patients with congenital neutropenia and multisystem involvement. Furthermore, it suggests the potential of empagliflozin as a treatment approach in this challenging condition.





ABSTRACT ID: PP 173

Title	A Distinct Early Presentation of Adenosine Deaminase Deficiency–Associated Severe Combined Immunodeficiency
Authors	Weerakoon Mudiyanseelage Dilini Randika Weerakoon ¹ , BDLA Alexander ¹ , DAY Muduwan ¹ , JASD Madubashini ¹
Affiliations	¹ Lady Ridgeway Hospital, Sri Lanka

ABSTRACT

Introduction: Adenosine deaminase (ADA) deficiency is a rare cause of Severe Combined Immunodeficiency (SCID) and constitutes a pediatric medical emergency. Delayed recognition results in rapid clinical deterioration from overwhelming infections. However, early diagnosis is often challenging due to heterogeneous initial presentations.

Case Presentation: We report a 4-month-old term female born to non-consanguineous parents who presented with persistent cough from day 13 of life. Despite receiving BCG and routine immunizations, she required treatment for pneumonia on two occasions and developed a progressive generalized pigmented rash over one month. Her clinical course was further complicated by severe failure to thrive and emerging global developmental delay.

Examination revealed absence of lymphadenopathy with diffuse cutaneous hyperpigmentation. Laboratory evaluation demonstrated marked lymphopenia. Flow cytometry showed profound B, NK and T-cell deficiency, raising suspicion of SCID, which was subsequently confirmed as ADA deficiency on genetic testing.

She was initiated on immunoglobulin replacement, antimicrobial prophylaxis, and multidisciplinary care with nutritional and developmental rehabilitation. Following therapy, her respiratory infections improved, and she is currently being optimized for definitive hematopoietic stem cell transplantation.

Conclusion: This case underscores how subtle early clinical clues, recurrent infections, failure to thrive, and atypical dermatological manifestations, may signal an underlying lethal immunodeficiency. Heightened clinical vigilance and early immunological evaluation can transform a potentially fatal trajectory into a curable condition through timely definitive therapy.





ABSTRACT ID: PP 174

Title	Severe Leukocyte Adhesion Deficiency Type 1 In A Preterm Neonate Presenting with Recurrent Sepsis and Delayed Umbilical Cord Separation
Authors	Dula Nuwanthi Alwis ¹ , Yashoda Athauda ¹ , Mohamed Safa ¹ , Lekhani de Silva ¹ , Archchana Thirulogamoorthy ¹ , Heshan Aruppala ¹ , Rajeev de Silva ² , Nalin Gamaathige ¹
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ABSTRACT

Introduction: Leukocyte adhesion deficiency type 1 (LAD-1) is a rare autosomal recessive primary immunodeficiency caused by mutations in the ITGB2 gene leading to defective CD18 (<2 integrin) expression. Severe forms (<2% CD18 expression) present in early infancy with recurrent life-threatening infections, delayed umbilical cord separation and marked neutrophil leucocytosis.

Case presentation: A preterm male infant born at 33 weeks' gestation to non-consanguineous parents, was admitted for prematurity and respiratory distress. During his 55-day hospital stay he developed recurrent culture-negative sepsis, meningitis, lobar pneumonia and urinary tract infection requiring multiple courses of broad-spectrum antibiotics. He had persistent marked leucocytosis ($91 \times 10^9/L$), delayed umbilical cord separation on day 29 and failure to thrive. The clinical course was further complicated by direct hyperbilirubinemia due to biliary sludge, hyponatraemia with normal anion gap metabolic acidosis suggestive of tubulopathy and anaemia requiring transfusions, all which was attributed to sepsis. In view of recurrent severe infections and persistent neutrophilia, primary immunodeficiency was suspected. Flow cytometry demonstrated <2% CD18 expression, confirming severe LAD-1. He was commenced on cotrimoxazole and fluconazole prophylaxis, live vaccines were withheld and strict infection control measures were advised.

Conclusion: Severe LAD-1 should be suspected in neonates with recurrent infections, persistent neutrophilic leucocytosis and delayed cord separation. Early diagnosis enables timely prophylaxis, genetic counselling and referral for definitive treatment such as haematopoietic stem cell transplantation.





ABSTRACT ID: PP 175

Title	From Index Case to Family Screening: Severe Non-Tuberculous Mycobacteria (NTM) Pneumonia Revealing X-Linked Lymphoproliferative Disease in Two Siblings
Authors	Intan Juliana Abd Hamid ¹ , Zarina Thasneem Zainudeen ¹ , Siti Aisyah Abd Rahim ²
Affiliations	¹ University Sains, Malaysia ² Hospital Sultan Abdul Halim, Malaysia

ABSTRACT

Background: X-linked lymphoproliferative disease (XLP) is a rare primary immunodeficiency classically associated with severe Epstein–Barr virus infection. Presentation with nontuberculous mycobacterial (NTM) disease is uncommon and may obscure the underlying diagnosis.

Case Presentation: We report two siblings in whom the diagnosis of XLP was established following a severe infectious presentation in the index case. The first sibling presented with lifethreatening, treatment-refractory pneumonia requiring intensive care support. Microbiological investigations identified pulmonary infection due to *Mycobacterium fortum* (nontuberculous mycobacteria, NTM). Given the unusual severity of infection, an underlying inborn error of immunity was suspected. Comprehensive immunological evaluation followed by genetic testing confirmed a pathogenic mutation consistent with X-linked lymphoproliferative disease. Recognition of XLP in the index patient prompted targeted family screening, leading to early identification of the same mutation in a second sibling, who was asymptomatic or minimally symptomatic at the time of diagnosis. This enabled close monitoring and early immunological management before the development of severe complications.

Discussion: NTM infection is a rare but important presenting feature of XLP and should prompt evaluation for underlying primary immunodeficiency, particularly in cases of severe or atypical disease. This case highlights the critical role of early genetic diagnosis, not only for guiding management of the affected patient but also for enabling cascade screening and early intervention in at-risk family members.

Conclusion: Early identification of inborn errors of immunity in children with severe NTM infection allows timely intervention and facilitates cascade screening, potentially preventing life-threatening complications in affected family members.





ABSTRACT ID: PP 176

Title	Ketamine-Induced Anaphylaxis During Lumbar Puncture in an Infant: A Rare Life-Threatening Event
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ABSTRACT

Introduction: Ketamine is a cornerstone of paediatric procedural sedation because of its haemodynamic stability, preservation of airway reflexes, and favourable safety profile. Serious hypersensitivity reactions due to ketamine are exceptionally rare, and ketamine-induced anaphylaxis is scarcely documented in infants. Here, we report a rare, life-threatening episode of anaphylaxis following ketamine administration for lumbar puncture.

Case Presentation: A previously healthy 9-month-old infant admitted with febrile convulsions and persistent fever underwent lumbar puncture to exclude meningitis. Intravenous ketamine (0.5 mg/kg) was administered for sedation. Within minutes, the child developed cough progressing rapidly to stridor, tachycardia, and weak pulses with cold clammy extremities, indicating anaphylactic shock. Immediate resuscitation was initiated according to paediatric anaphylaxis algorithms, including repeated intramuscular adrenaline, aggressive fluid resuscitation, antihistamines, nebulized adrenaline and intravenous adrenaline infusion. Despite initial treatment, persistent respiratory distress with a characteristic staccato breathing pattern prompted urgent multidisciplinary review. However, additional corticosteroid therapy resulted in a gradual clinical improvement without the need for airway intervention. The infant made a complete recovery with no residual complications or neurological sequelae.

Conclusions: This case underscores that ketamine, despite its established safety, can rarely precipitate severe life-threatening anaphylaxis. Vigilant monitoring during sedation, readiness for rapid resuscitation, and awareness of atypical presentations are essential to prevent catastrophic outcomes. Informed consent for procedural sedation should include discussion of rare but life-threatening adverse reactions. Reporting such cases is crucial to enhance clinician awareness and improve patient safety during paediatric procedures requiring sedation.





ABSTRACT ID: PP 177

Title	A Case Report of Full-Course Nutrition Support for a Heart-Transplant Child
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ABSTRACT

Introduction: Heart transplantation is an effective solution to end-stage heart failure. Appropriate nutritional support improves not only the nutritional status but also the success rate and recovery from transplantation. We reported the peri-operative nutrition management of a heart-transplant child.

Case Presentation: The child is a 4 years and 10 months' old boy diagnosed with dilated cardiomyopathy. His cardiac function was progressively deteriorating with lower-limb oedema and feeding refusal. Therefore, the child received heart transplantation, undergoing delayed sternal closure, ECMO support, mechanical ventilation, anti-infective, and immunosuppression therapy. The nutrition team was involved throughout the hospitalization.

The child was 104 cm (P10) in height and 14.3kg (P8) in weight at admission, having lost 14.8% weight in 1 month. He received parenteral nutrition (PN) pre-transplantation because of insufficient oral intake. On post-operative day (POD) 1, the child received continuous nasogastric feeding with hydrolysed, high-calorie formula and shifted to intermittent feeding. On POD 21, the child transitioned to oral feeding. However, on POD 26, the child developed chyloperitoneum (8-15 ml/kg/day). Enteral nutrition (EN) was shifted to a fat-free formula. On POD 30, drainage fluid increased to 20 ml/kg/day and PN was added. We changed to high-MCT formula for EN after drainage fluid decreased. On POD 36, his total intake achieved 106 kcal/kg/day (3.5g/kg/day protein, 80 kcal/kg/day and 2 g/kg/day protein from EN) and PN was discontinued. The drainage tube was removed on POD 43. The child was discharged on POD 48.

Conclusion: Full-course nutrition support tailored by peri-operative stages is necessary to heart-transplant children.





ABSTRACT ID: PP 178

Title

A Case of Rare Leukodystrophy of ASPA Gene Mutation

Authors

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ABSTRACT

Introduction: Canavan disease is a rare autosomal recessive leukodystrophy caused by mutations in the ASPA gene, causing accumulation of N-acetyl aspartic acid and diffuse white matter degeneration.

Case presentation: Master A, presented at one year three months of age with developmental regression. He was born at term to non-consanguineous healthy parents with normal development until four months, after which he developed bronchopneumonia complicated by meningitis. Following this, there was progressive loss of milestones.

He had macrocephaly with preserved growth parameters, significant irritability, minimal visual interaction due to cortical visual impairment but showed auditory responsiveness. There were minimal social interactions, absence of reaching or grasping. There was marked dystonia and hypertonia of all four limbs, partial head control, and was unable to sit with support.

He had normal hematological parameters and negative metabolic screening. EEG demonstrated an immature background for age. MRI brain revealed markedly delayed myelination with involvement of the posterior limb of the internal capsule, posterior corpus callosum, and globus pallidi. Ophthalmological evaluation showed bilateral early optic atrophy. USS abdomen was normal. Whole exome sequencing identified a likely pathogenic heterozygous frameshift termination mutation in the ASPA gene, with autosomal recessive inheritance.

The baby was restarted on antispastic medications with gradual dose escalation and enrolled in early intervention including cortical visual impairment-specific therapy and orthotic support.

Conclusion: This case highlights the importance of early recognition, genetic confirmation, and multidisciplinary rehabilitation in neurodegenerative leukodystrophies, with appropriate family counselling despite limited disease-modifying treatment options.





ABSTRACT ID: PP 179

Title	Disseminated Tuberculosis in a child with severe malnutrition and immune deficiency.
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ABSTRACT

Introduction: Tuberculosis is one of the most common causes of morbidity in children. Disseminated form causes more than one organ involvement, commonly seen in immune deficiency and malnutrition. Delay in diagnosis is due to paucibacillary nature and atypical presentation.

Case Presentation: 7-year-old boy from poor socio-economic background with severe malnutrition presented with chronic cough and fever for 3 weeks, associated with large joint arthritis. He was the second child of non-consanguineous parents with a healthy male sibling.

He had a normal development and immunisation status, although protein energy malnutrition was present.

He developed pancytopenia and high inflammatory markers with left lower zone consolidation. TB GeneXpert in repeated gastric aspirate became positive. Bone marrow biopsy and joint aspirates were normal. Child had incidental detection of hypogammaglobulinemia with absent CD19 cells. However, T cell function was normal with negative HIV screening.

He responded to anti tuberculous treatment, intravenous immunoglobulins and meticulous nutrition optimisation with intense monitoring for refeeding syndrome. Joint arthritis responded to physiotherapy.

Discussion: Cell-mediated immunity is crucial for containment of Tuberculosis. Malnutrition reduces expression of proinflammatory cytokines and maturation of T helper cells, causing secondary immune suppression. This leads to faster progression due to inefficient granuloma formation. Hypogammaglobulinemia has no direct effect on pathogenesis but increases the risk in a malnourished child.

Diagnosis can be challenging in disseminated form and requires repeated clinical and laboratory evaluation.

Poncet's disease is a reactive polyarthritis seen as association in active Tuberculosis with negative synovial cultures. Early identification can prevent misdiagnosis.





ABSTRACT ID: PP 180

Title	Parotid abscess and suppurative cervical lymphadenitis in a child due to melioidosis
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ABSTRACT

Introduction: Melioidosis is relatively uncommon in children, accounting for 5-15% of the cases. Risk factors like chronic diseases and immunosuppression are seen in only 25%. "The great mimicker" has a multitude of presentations, with distinctive regional patterns noted in children. Parotid abscesses are common in Southeast Asia, probably owing to ingestion of unchlorinated water. Neurological presentations and pneumonia predominate in Northern Australia, probably due to the risk of inhalation during adverse weather.

Case presentation: A one-year-and-five-month-old girl presented to the local hospital with left-sided neck swelling and fever for four days. She had a history of intermittent fever in the preceding two months. She used to play with soil frequently and was given un-boiled drinking water from a well. A parotid abscess was detected and drained, and the child was discharged after IV co-amoxiclav for 7 days. After readmission with the same symptoms, she was transferred to tertiary care for further management. Imaging showed suppurative cervical lymphadenitis, and the drained pus yielded a growth of *Burkholderia pseudomallei*. The intensive phase of treatment was completed with 3 weeks of IV meropenem and oral cotrimoxazole. Residual abscesses were excluded, and eradication therapy with oral cotrimoxazole plus folic acid was given for 3 months.

Conclusions: Melioidosis should be among the differential diagnoses in children presenting with parotid abscess and cervical lymphadenopathy in an endemic country such as Sri Lanka. Adequate surgical management, sending samples for bacterial cultures, and prolonged antibiotic therapy with proper compliance need to be ensured to prevent treatment failures.





ABSTRACT ID: PP 181

Title

Rectal Ameboma Presenting with Fecal Incontinence: A Rare Pediatric Case

Authors

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ABSTRACT

Introduction: Amoebiasis, caused by *Entamoeba histolytica*, is endemic in developing countries. Ameboma is a chronic inflammatory complication characterized by a granulomatous, tumor-like mass of the bowel wall. It most commonly involves the caecum and rectosigmoid colon; isolated rectal involvement is uncommon, particularly in children. Because it can mimic malignancy, failure to recognize this entity may result in unnecessary intervention. We report a rare case of rectal ameboma presenting as a mass lesion with fecal incontinence in a child.

Case Presentation: An eight-year-old girl from low socioeconomic background presented to the paediatric surgical ward with an eight-month history of fecal incontinence. There was no history of chronic diarrhea, rectal bleeding, abdominal pain, weight loss, or fever. Initial evaluation revealed a hard, non-tender rectal mass on digital rectal examination. Her initial blood investigations were normal. Her stool full report also did not show any abnormality. Contrast-enhanced computed tomography demonstrated a localized lesion involving the posterior rectal wall without bowel obstruction or lymphadenopathy. Examination under anesthesia confirmed the presence of a rectal lump; colonoscopy was not performed. Histopathological evaluation of the lesion established the diagnosis of ameboma. She was subsequently referred to the pediatric unit, where she received a 10-day course of intravenous metronidazole. On clinical reassessment, there was complete resolution of fecal incontinence.

Conclusions: Ameboma should be considered in the differential diagnosis of rectal masses in children, particularly in endemic populations. Early recognition enables successful medical management and prevents avoidable surgical procedures.





ABSTRACT ID: PP 182

Title	Guillain–Barré Syndrome following Chikungunya Infection in a 6 year old Child
Authors	Anagi Shakya Kottahachchi ¹ , Mihira Manamperi ¹ , Chaturi Chapa Bandara ¹ , Prabhahwara Kularathne ¹ , Thilini Somaratne ²
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ABSTRACT

Introduction: Guillain–Barré Syndrome (GBS) is an acute immune-mediated polyneuropathy characterized by rapid onset muscle weakness and areflexia, often following infection by *Campylobacter jejuni*, Cytomegalovirus, and Epstein–Barr virus. However, arboviruses like Chikungunya are rarely associated with GBS. We are reporting a case of GBS associated with Chikungunya infection.

Case Presentation: A previously healthy 6-year-old boy presented with acute onset ataxia and slurred speech since 2 hours. He had mild fever for 3 days with some respiratory symptoms. There was no history of seizures, bladder or bowel incontinence. Initial neurological examination revealed pronounced truncal ataxia with slightly diminished reflexes. Following day it had progressed to positive finger nose test. Lumbar puncture, MRI brain and spine and peripheral nerve conduction study were normal. He was transferred to the leading Paediatric center for further evaluation. The repeat nerve conduction study done on day 9 was compatible with GBS. Full blood count and C-reactive-protein showed a viral pattern. Serum Chikungunya IgM became positive and viral studies of cerebrospinal fluid were negative. He responded rapidly to intravenous immunoglobulin and methyl prednisolone.

Discussion and Conclusion: This child's clinical presentation is suggestive of post-infectious cerebellitis. However, the evolution of symptoms and positive repeat nerve conduction study established the diagnosis of GBS precipitated by Chikungunya infection. Repeated neurophysiological testing is valuable when initial studies are inconclusive, and timely initiation of intravenous immunoglobulin therapy offers a better outcome.





ABSTRACT ID: PP 183

Title	Chikungunya infection camouflaged as acute glomerulonephritis in an infant
Authors	Gayani Wijesinghe ¹ , Mihira Manamperi ¹ , Thilini Somarathne ² , Chathuri Chapa Bandara ¹ , Prabhashwara Kularathne ¹
Affiliations	¹ Paediatric Department, Sri Jayewardenepura General Hospital, Sri Lanka ² Medical Research Institute, Sri Lanka

ABSTRACT

Introduction: Chikungunya virus infection is an arbo viral illness commonly presenting with fever and joint symptoms. Common Paediatric dermatological manifestations in chikungunya include generalized erythematous rash, purpura and aphthae. We are reporting a rare case of an infant who presented with periorbital swelling and pedal oedema following a chikungunya infection.

Case Presentation: An 8-month-old boy presented with a 4-day history of high-grade fever, poor feeding, and reduced urine output, along with marked periorbital and pedal oedema which was pronounced on day 4 of illness. His blood pressure was on the 95th centile, without signs of fluid overload or heart failure. The possibility of evolving acute glomerulonephritis was considered and further investigations were planned. Urinalysis revealed trace to 1+ proteinuria, without haematuria or casts. Serum protein, albumin, and cholesterol were within normal limits. Abdominal ultrasonography showed no renal parenchymal changes or free fluid. Fever spikes persisted, and there was a strong contact history of chikungunya infection. Serology was sent on day 6; IgM was positive for chikungunya. Oedema resolved gradually, and the renal function remained normal.

Discussion and Conclusion: Although dermatological manifestations are common in chikungunya infection, generalised oedema without renal pathology is unusual. The probable mechanism is transient capillary leakage triggered by viral infection. This presentation can closely resemble acute glomerulonephritis, leading to diagnostic dilemma. In endemic areas during chikungunya outbreaks, the condition should be considered in infants presenting with periorbital and pedal oedema to avoid unnecessary traumatic invasive investigations and inappropriate treatment.





ABSTRACT ID: PP 184

Title	Chikungunya-Associated Meningitis in an Infant: A Rare Clinical Presentation
Authors	D. Sachini Kaushalya Weerakkody ¹ , Dilumini Dissanayaka ¹ , Ann Modaragama ² , Nadeeka Peris ¹ , Kapila Panditha ¹
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ABSTRACT

Introduction: Chikungunya is an acute viral illness caused by the Chikungunya virus (CHIKV), an RNA virus of the genus Alphavirus in the family Togaviridae, transmitted by Aedes mosquitoes. Although it classically presents with fever, rash, and severe arthralgia, neurological complications are increasingly recognized. These include encephalitis, meningoencephalitis, and, rarely, isolated meningitis.

Case: A 3-month-old infant admitted with a two-day history of fever and generalized erythematous rash, associated with irritability and excessive crying. Birth history was unremarkable.

On admission, the infant was febrile and looked ill. He had a generalized erythematous, maculopapular, blanching rash. He was hemodynamically stable. Cardiovascular, respiratory, abdominal and neurological examinations were unremarkable.

Following admission, the child's clinical condition deteriorated, progressing to septic shock, necessitating intravenous fluid resuscitation.

Investigations: Full blood count WBC- 6.3* 10⁹/L, Hb- 8g/dL, Platelet- 383* 10⁹/L, CRP- 64mg/dL, Blood gas showed metabolic acidosis. Liver and renal functions, electrolytes and coagulation profile were normal. CSF full report- lymphocytes -14 cells/mm³, protein 44 mg/dL with no sugar difference.

Blood and CSF cultures were negative. Chikungunya IgM was positive. Ultrasound of the brain and abdomen, and echocardiogram were normal. The child was treated with intravenous antibiotics and a follow-up was arranged.

Conclusion: Currently, there is no antiviral treatment for Chikungunya. Management remains supportive and symptomatic. Chikungunya-associated meningitis is an uncommon but potentially serious complication in children and may lead to significant morbidity, underscoring the need for early recognition and prompt management.





ABSTRACT ID: PP 185

Title	Dengue Hemorrhagic fever with Self-Limited Hemophagocytic Lymphohistiocytosis in a toddler: a case report
Authors	Chandima Gamage ¹ , Thilini Somaratne ² , Chaturi Chapa Bandara ¹ , Chandima Gamage ¹
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ABSTRACT

Background: Dengue hemorrhagic fever (DHF) is the severe form of dengue infection which is associated with life threatening complications such as secondary hemophagocytic lymphohistiocytosis (HLH). It is a life threatening hyperinflammatory syndrome caused by excessive immune activation. We report a 1-year-8-month-old previously healthy girl who developed clinical and biochemical features fulfilling HLH- diagnostic criteria following DHF. She recovered completely without any interventions.

Case Presentation: She presented with fever for three days with a positive dengue antigen test. She was free of any dengue risk factors such as nonsteroidal anti-inflammatory drug usage, steroid intake, or paracetamol overdosage. She entered the critical phase of dengue on day 4 of illness making an uneventful recovery without shock, bleeding, or organ failure. Even on day 8 of illness, she continued to have persistent fever with poor general wellbeing raising the concern of evolving HLH among other possibilities. Laboratory Investigations revealed thrombocytopenia, leucopenia, hyperferritinemia (9,975 ng/mL), Hypertriglyceridemia (280 mg/dL), Hypofibrinogenemia, elevated liver transaminase levels pointing to secondary HLH.

She received supportive management alone, with vigilant monitoring in case of clinical deterioration to proceed with the bone marrow examination. However, she fully recovered without receiving immunosuppressive therapy such as corticosteroids or intravenous immunoglobulin.

Conclusion: This case highlights that HLH should be considered in DHF patients with persistent fever beyond the critical phase and continuing fever after the convalescent period in dengue fever. It generally warrants immunosuppressive therapy. However, in this atypical case the symptoms were resolved spontaneously though the criteria fulfilled the diagnosis HLH.





ABSTRACT ID: PP 186

Title	Early entering of dengue critical phase in a 5-month-old male infant: a case report
Authors	Prabhashwara Kularathne ¹ , Mihira Manamperi ¹ , Chaturi Chapa Bandara ¹ , Thilini Somaratne ² , Chandima Gamage ¹
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ABSTRACT

Background: Dengue in early infancy could progress rapidly in to the critical phase with subtle clinical manifestations without classical laboratory changes. Early recognition of plasma leakage is crucial to prevent morbidity and mortality. We report a 5-month-old infant who entered the critical phase of dengue at the beginning of day 2 of illness with preserved haemodynamics, without dropping platelet below 100,000/mm³ or rising trend of haematocrit.

Case Presentation: 5-month-old infant, presented with fever for one day. There was no history of previous dengue infection, no exposure to steroids, non-steroidal anti-inflammatory drugs or paracetamol overdose. On admission, had a positive NS1 antigen test with a platelet count of 160,000/mm³. hematocrit was 35. On early day 2 of illness, the infant remained febrile and appeared unwell but continued to maintain stable vital signs. However, significant hepatic tenderness was noted on examination. The platelet count had dropped to 147,000/mm³ with a stable PCV of 35. The ultrasound scan was performed and demonstrated free fluid in the abdomen and a right-sided pleural effusion, confirming the critical phase of dengue haemorrhagic fever. Meticulous critical phase dengue monitoring was commenced. Platelet count dropped to 67,000/mm³ on day 3 and reached a lowest value of 19,000/mm³ on day 5. The baby recovered fully without bleeding manifestations, shock, or organ dysfunction.

Conclusion: This case highlights the importance of meticulous monitoring and early ultrasonography in infants with dengue, even when clinical and laboratory parameters do not suggest entering to critical phase in contrast to rest of the paediatric population.





ABSTRACT ID: PP 187

Title

Three month old infant with pyomyositis of the right teres minor muscle with abscess formation following MRSA bacteraemia: a case report

Authors

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ABSTRACT

Background: Pyomyositis is an uncommon bacterial infection of the skeletal muscle with formation of an intramuscular abscess. The common muscles involved are the pelvic and thigh muscles. We are reporting a case of pyomyositis of the right teres minor muscle with abscess formation secondary to methicillin resistant staphylococcus aureus (MRSA) bacteraemia in a three month old infant with an excellent outcome.

Case Presentation: A previously healthy baby girl presented with high fever for 2 days. Examination was normal except for subtle reduction of movement of the right upper limb (RUL). Initial blood tests showed evidence of a bacterial infection with a high C reactive protein. Intravenous cefotaxime was commenced after blood culture. Lumbar puncture became positive while blood culture grew MRSA and ultrasonography of right shoulder joint was normal. The paucity of RUL movements became more pronounced. Repeated careful examination revealed a slightly swollen tender point just beneath the right shoulder joint suggestive of an abscess. Focussed ultrasonography revealed an abscess within right teres minor muscle. Urgent surgery performed with pus culture revealing MRSA. Fever settled overnight, paucity of movement of the right upper arm improved dramatically with complete recovery following treatment.

Conclusion: Pyomyositis is a rare clinical entity in paediatrics. It could present at an age as early as three months. In addition, this infant had involvement of rotator cuff muscles, not previously reported. Therefore, if a young infant presents with fever, paucity of movement of a limb, high inflammatory markers pyomyositis is worth considering in the differential diagnoses.





ABSTRACT ID: PP 188

Title	Mycoplasma induced mucositis and rash (MIRM); a newly described entity
Authors	Don Simon Patabendi Yashica Ruklanthi de Silva ¹
Affiliations	¹ Perth Children's Hospital, Australia

ABSTRACT

Introduction: Mycoplasma-induced rash and mucositis (MIRM) is a newly recognized mucocutaneous condition associated with Mycoplasma pneumoniae infection and often misdiagnosed as Stevens–Johnson Syndrome (SJS). MIRM is characterized by prominent mucositis with minimal skin involvement, typically following a respiratory illness. Early recognition and multidisciplinary care are essential to prevent complications, particularly ocular sequelae. We report a case of severe MIRM in a school-aged child requiring intensive supportive therapy.

Case Presentation: An 11-year-old previously healthy girl presented with a week of cough and rhinorrhoea, followed by painful oral ulcers, lip crusting, fever, and bilateral conjunctivitis. A few scattered papular skin lesions were noted, with otherwise normal systemic examination. Respiratory PCR confirmed Mycoplasma pneumoniae, while viral and bacterial investigations were negative. A diagnosis of MIRM was established. She required ICU admission for sedation, airway protection, enteral feeding, and intensive pain control. Multidisciplinary involvement included ophthalmology for topical steroids, lubricants, and prophylactic antibiotics, and dermatology for oral corticosteroids and skin care. Azithromycin was administered, and she was discharged after 16 days with improving mucosal lesions and a steroid taper.

Conclusions: This case highlights the importance of distinguishing MIRM from SJS to guide timely, supportive, and organ-preserving care. Increased awareness of this entity among paediatric clinicians may reduce diagnostic delays and improve outcomes.





ABSTRACT ID: PP 189

Title	Exchange Transfusion in Malignant pertussis, a lifesaving Intervention
Authors	Don Simon Patabendi Yashica Ruklanthi de Silva ¹
Affiliations	¹ Perth Children's Hospital, Australia

ABSTRACT

Introduction: Malignant pertussis is a severe and life-threatening form of *Bordetella pertussis* infection, characterised by profound leucocytosis, pulmonary hypertension, and respiratory failure, particularly in young infants. Early recognition and aggressive management are critical to improve outcomes. We present a case of malignant pertussis with concurrent COVID-19 infection in a 42-day-old infant.

Case Presentation: A 42-day-old infant presented with a five-day history of worsening respiratory distress. On admission, the infant demonstrated moderate to severe respiratory distress requiring high-flow nasal oxygen, later escalating to bubble CPAP. Nasopharyngeal testing was positive for both *Bordetella pertussis* and SARS-CoV-2. Laboratory investigations revealed marked leucocytosis (WBC $45 \times 10^9/L$) with lymphocytosis ($21 \times 10^9/L$), haemoglobin 150 g/L, thrombocytosis (platelets $607 \times 10^9/L$), elevated C-reactive protein (30 mg/L), lactate 3 mmol/L, and pCO₂ 50 mmHg. Chest radiography showed evolving pulmonary consolidation. Given significant hyperleukocytosis and clinical deterioration, two exchange transfusions were performed. The infant received a five-day course of azithromycin and required paediatric critical care support. Gradual clinical improvement was observed, and the infant was discharged home after 16 days of hospitalisation.

Conclusions: Malignant pertussis remains associated with high morbidity and mortality in young infants. Severe leucocytosis should prompt consideration of exchange transfusion to reduce the risk of cardiopulmonary compromise. This case highlights the importance of early escalation of respiratory support and aggressive management, particularly in the context of concurrent viral infection.





ABSTRACT ID: PP 190

Title	A Rare Case of Multi Drug Resistant Meningitis
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ABSTRACT

Introduction: Multidrug-resistant (MDR) meningitis is a severe, life-threatening infection of the meninges surrounding the brain and spinal cord. Management is challenging due to limited antimicrobial penetration across the blood–brain barrier and rising antimicrobial resistance. Early identification of the causative organism and targeted therapy are essential to improve outcomes.

Casereport: A 1-year-old boy, the third child of healthy non-consanguineous parents, presented with a nine-day history of fever, cough, and coryza. There were no seizures, altered consciousness, or focal neurological deficits. Development was age-appropriate, although growth parameters were below the expected range. The child had a history of colostomy for congenital imperforate anus.

On examination, neck stiffness was present, while other systemic findings were unremarkable. During hospitalization, he developed high-grade fever spikes. Laboratory investigations revealed elevated inflammatory markers with neutrophilic leukocytosis. Chest radiography and abdominal ultrasonography were normal. Lumbar puncture demonstrated cerebrospinal fluid findings consistent with bacterial meningitis. Empirical intravenous Ceftriaxone was initiated without clinical improvement. Neuroimaging was normal. Following microbiology consultation, treatment was escalated to Meropenam and Vancomycin; however, the child remained febrile. The cerebrospinal fluid culture report identified *Escherichia coli* resistant to all antibiotics. After discussion with the microbiology team, intravenous Colistin was administered for 14 days, resulting in complete clinical resolution.

Discussion: This case highlights the rarity and severity of MDR bacterial meningitis in children. It underscores the importance of timely cerebrospinal fluid culture, antimicrobial sensitivity testing, and judicious antibiotic use to guide targeted therapy and prevent resistance.





ABSTRACT ID: PP 191

Title	Severe Neonatal-onset propionic acidemia presenting with recurrent metabolic crises
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ABSTRACT

Introduction: Propionic acidemia a rare organic acidemia, is an autosomal recessive disease from deficiency of mitochondrial enzyme propionyl-CoA carboxylase, leading to accumulation of propionic acid and toxic metabolites.

Case Presentation: The subject male infant, third child born to consanguineous parents, showed reduced activity since birth. On examination, he was drowsy, moderately dehydrated and had no acidotic breathing, hypotonia or organomegaly. He was initially managed as presumed sepsis with intravenous antibiotics, but with minimal improvement. Basic investigations including venous blood gas and cranial imaging were unremarkable. A maternal history of neonatal death due to a suspected metabolic disease in a previous sibling warranted metabolic evaluation.

Acyl carnitine profile revealed elevated propionyl carnitine C3 = 17.06 μM (0.2-4.0 μM), C3 /C2 = 2.88 μM (0.02-0.2 μM), C3 /C16 = 8.97 μM (0.12-2.6 μM). Urine screening for organic acids and blood for aminoacidopathies confirmed the diagnosis.

At one month, re-presented with a febrile respiratory illness followed by drowsiness and reduced activity. Metabolic acidosis, pancytopenia (Hb 6.4 mg/dL) and marginal hypoglycaemia indicated a metabolic crisis, managed with fluid and electrolyte resuscitation. A transient neurodevelopmental regression was noted, with gradual improvement.

Conclusion: Clinical features usually manifest in the neonatal period and exhibit a wide clinical spectrum ranging from catastrophic metabolic decompensations in early infancy to lenient late onset presentations in childhood. Neonates present with nonspecific symptoms mimicking neonatal sepsis, encephalopathy or dehydration, creating diagnostic challenges. High suspicion in consanguinity or unexplained sibling deaths is crucial to detect and initiate early treatment which would prevent catastrophic permanent impairments.





ABSTRACT ID: PP 192

Title	Neonatal cholestasis as a sentinel manifestation of Niemann pick type C
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ABSTRACT

Introduction: Niemann-Pick type C (NPC) is an autosomal recessive lysosomal storage disorder caused by mutations in the NPC1 or NPC2 genes, leading to lysosomal accumulation of cholesterol and glycosphingolipids. The disease exhibits marked phenotypic heterogeneity, with age-dependent presentations ranging from severe neonatal liver disease to progressive neurological deterioration in childhood.

Case presentation: A two-month-old male infant, born to third-degree consanguineous parents, presented with cholestatic jaundice from the second week of life. He was deeply icteric, affecting all mucocutaneous membranes, without features of obstructive jaundice. There were no signs of congenital infections, dysmorphism, or peripheral stigmata of chronic liver disease. Family history was significant for a sibling death at four months from suspected metabolic liver disease which was later genetically confirmed to be of Niemann pick type C. The infant had marked hepatosplenomegaly but normal growth, development, and neurological examination.

Laboratory tests showed normal blood counts and liver synthetic function, elevated bilirubin, AST/ALT (10× normal), high triglycerides and cholesterol, and normal renal function and venous blood gas. Ultrasound excluded biliary atresia, and alpha-fetoprotein was markedly elevated.

Close surveillance for liver failure and early neurodevelopmental therapy initiated

Conclusion: NPC is slowly progressive, with initial visceral involvement that may be transient, eventually leading to neurological impairments such as hypotonia and developmental delay. There is no curative treatment; management focuses on supportive care through a multidisciplinary team, including hepatology, neurology, nutrition, and physiotherapy, to optimize outcomes and quality of life. If progress to liver failure, liver transplantation may be indicated.





ABSTRACT ID: PP 193

Title	Suspected case of Congenital Galactose Glucose Malabsorption associated with Nephrocalcinosis
Authors	Lelwala Godakandage Chaminda Prasad Godakanda ¹ , Dilumini Dissanayake ¹ , Thamodha Weerasinghe ¹ , Rohan Wickramasinghe ² , Viraj Thilakarathna ³ , Shenali Wijetunge ¹ , Ayesha Narangoda ² , Sarojini Viknarajah ¹
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ABSTRACT

Introduction: Congenital Glucose-Galactose Malabsorption (CGGM) is a rare autosomalrecessive defect present in infancy, caused by a gene mutation in the SLC5A1 gene, encoding the sodium-glucose cotransporter-1 (SGLT1). This impairment prevents intestinal absorption of glucose and galactose, leading to severe osmotic diarrhoea, lead to severe dehydration, metabolic acidosis, and death if left untreated. whereas fructose absorption via GLUT5 remainsintact in CGGM.

Case Description: A 3-month-old, born to non-consanguineous parents, exclusively breastfed male presented with neonatal-onset osmotic diarrhoea and profound failure to thrive (WAZ < -3 SD), with a family history of similar diarrheal disease on the maternal side. Laboratory evaluation during an acute episode revealed severe hypernatremic dehydration (Na 162 mmol/L), metabolic acidosis (pH 7.16, HCO₃⁻ 7.9 mmol/L), and hypercalciuria. Ultrasonography confirmedbilateral nephrocalcinosis. Symptoms persisted on lactose-free formulas containing glucose polymers but ceased when the baby was not fed. A presumptive diagnosis of CGGM was made based on the dramatic clinical resolution following the introduction of a specialized fructosebased diet. Despite the absence of confirmatory genetic testing due to resource constraints,the pathognomonic response to dietary carbohydrate modification provided support for the diagnosis.

Conclusion: CGGM is a critical differential in neonates with refractory osmotic diarrhoea andhypernatremia. This case highlights the rare but significant association with nephrocalcinosis, likely secondary to chronic dehydration and metabolic acidosis-induced hypercalciuria. In resource-limited settings, a structured dietary trial is a diagnostic and life-saving necessity. Early identification is paraount to prevent permanent renal damage and ensure normal growth trajectories through targeted nutritional therapy.





ABSTRACT ID: PP 194

Title	When Scholastic Decline Signals a Metabolic Disorder: Niemann-Pick Disease type C
Authors	Hannagala Gamage Hiruni Udara ¹ , Kankanararachchi I ¹ , Munasinghe TM ¹ , Madhushani KHP ¹ , Ruwanpathirana UM ¹ , Dharmasiri BKGSS ¹
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ABSTRACT

Introduction: Niemann–Pick disease type C (NPC) is a rare autosomal recessive lysosomal storage disorder, commonly due to NPC1 gene mutations. The condition is characterised by progressive neurodegeneration with variable systemic involvement, frequently resulting in delayed diagnosis. We report the case of a young boy with NPC who was referred primarily because of declining school performance.

Case Presentation: A 7-year-old boy, born to 3rd degree consanguineous parents was referred to paediatrician for further evaluation of poor school performance. His early development was appropriate however subtle neurodevelopmental regression became evident between 5 - 6 years of age. Presenting features included gait abnormalities, recurrent falls, clumsiness and impaired comprehension. There was no history of neonatal jaundice or seizures. Examination revealed microcephaly, dysarthria, vertical supranuclear gaze palsy, mild ataxia, moderate splenomegaly, mild hepatomegaly. Cherry – red spots were absent. Cognitive assessment showed a fluid IQ of 56.

Full blood count and EEG were normal. Bone marrow biopsy demonstrated foamy macrophages and sea-blue histiocytes. Biomarkers supportive of NPC were markedly elevated; serum Chitotriosidase - 2424 $\mu\text{mol/hr/ml}$ (reference 9–50) and CCL18 - 219.02 ng/mL (reference 1–72). MRI brain and genetics are awaited.

The child shows gradual neurodevelopmental regression and is receiving multidisciplinary supportive care. Arrangements are currently underway to initiate Miglustat, a substrate reduction therapy, which is not readily available locally.

Conclusion: This case highlights poor academic performance as an early and easily overlooked presentation of NPC and underscores the challenges in timely diagnosis and access to disease-specific therapy in resource-limited settings.





ABSTRACT ID: PP 195

Title	A severe form of glutaric acidemia type 2 presenting during the neonatal period- A case report
Authors	Liyanapatabadige Umani Shiranga Senavirathne ¹ , Imesh Galappaththi ¹ , Sanduni Wijesinghe ¹ , Imalke Kankanararachchi ² , S.I. Majitha ³ , Nishani Lucas ¹
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ABSTRACT

Introduction: Glutaric acidemia type 2 is a rare inherited disorder with deficiencies in electrontransfer flavoprotein (ETF) and ETF-dehydrogenase resulting in inability to metabolize certain fats and proteins.

Case presentation: Baby girl, born at term, with a birth weight of 2.56kg, to parents with thirddegree consanguinity who experienced two miscarriages and two neonatal deaths on day 4 of life following hypoglycemia, was evaluated for possible metabolic disorder. Baby was noted to have pale skin, hypotonia and reduced activity since birth. USS abdomen was normal on day 4. On day 6, She developed metabolic crisis with hypoketotic hypoglycemia (blood sugar=11mg/dL), hyperammonemia (412micromol/L- could be partly due to pre-analytical issues), elevated lactate(8.2mmol/l) and seizures following glucose correction. 2D echocardiography on day 8 excluded cardiomyopathy. On day 12 EEG demonstrated multifocalepileptiform discharges with abnormal background activity. Neuroimaging revealed multifocal ischemic changes. She required noninvasive ventilation from day 13-20 for respiratory distress. Baby is now 21 days old and is stable on nasal prong oxygen.

Baby had normal/alkalotic pH with decreasing lactate levels (11mmol/l to 0.6mmol/l). Her aminoacid profile, galactose and biotinidase levels were normal. Mild elevation of acylcarnitine C4, C5, C6, C7, C8, C10, C5DC, C12, C14:1, C14 was suggestive of glutaric acidemia type 2. We are awaiting urine organic acid analysis and genetic diagnosis. Baby is treated with multivitamin containing riboflavin, carnitine and ammonia scavengers.

Conclusion: Metabolic disease should be suspected in neonates with family history of consanguinity, recurrent miscarriages and early neonatal deaths due to hypoglycemia.





ABSTRACT ID: PP 196

Title	Infantile Tay–Sachs Disease: A Rare Neurodegenerative Disorder in a South Asian Child
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ABSTRACT

Introduction: Tay-Sachs disease is a rare, fatal, autosomal recessive neurodegenerative disorder caused by α -hexosaminidase A deficiency, resulting in GM2 ganglioside accumulation and progressive neuronal damage. The disease is more common in Ashkenazi Jewish.

Case Presentation: A 1-year and 6-month-old girl, born as third child of first-degree consanguineous parents, one sibling had neonatal death of unknown etiology, while twin siblings were healthy. Development was mildly delayed until 5 months, after which she lost previously acquired milestones, particularly gross motor and social skills. By 18 months, she had no head control, visual tracking, palmar grasp, or babbling, and responded only by crying.

Her first seizure occurred at 12 months following immunization, progressed from focal to generalized seizures. Despite optimum dose of sodium valproate and levetiracetam seizure control remained poor.

Examination revealed macrocephaly, severe wasting. Neurologically she had generalized hypertonia, brisk reflexes, bilateral extensor plantar responses, dystonia, wandering eye movements, and exaggerated startle reflex. No organomegaly was detected.

Fundoscopy showed bilateral cherry red spots with early optic atrophy. MRI brain demonstrated diffuse white matter changes, bilateral striatal hyperintensity with swelling, and thalamic hypointensity. Enzyme assays and genetic testing were not available due to limited resources.

The child was managed conservatively with anticonvulsants, nutritional support, and physiotherapy. The progressive nature of the disease and its poor prognosis were discussed in detail with the parents.

Conclusion: Recognition of neuro regression, exaggerated startle response, cherry red spots and characteristic MRI findings enables early diagnosis in resource-limited settings, allowing supportive care and genetic counselling.





ABSTRACT ID: PP 197

Title

Giant Bladder Calculi : A Rare Cystinuria-Associated Nephrolithiasis in Rural Paediatrics.

Authors

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ABSTRACT

Giant bladder calculi are common in adults but rare in children. In paediatric population, predisposing factors differ and typically include urinary stasis, congenital anomalies of the kidney and urinary tract, infections, dehydration and malnutrition. Metabolic abnormalities often under-diagnosed. A 3-year-old girl, from non-consanguineous marriage with no significant family history, presented with 2-day history of acute abdominal pain and oliguria. She experienced recurrent, self-limiting episodes over preceding year. Her pain score ranged 2- 6/10, haemodynamically stable, afebrile, with suprapubic tenderness. Baseline investigations, including inflammatory markers were normal. Urinalysis showed presence of leucocytes and positive nitrite, though no positive culture. Radiography revealed large bladder calculi and right kidney calculus. Antibiotic commenced for presumed urinary tract infection with nephrolithiasis and referred to paediatric surgery and urology. Two bladder stones successfully removed during vesicolithotripsy. Inborn error of metabolism screening was non-diagnostic. However, urinary cystine was markedly elevated (669.02 mmol/mol creatinine; normal <50), confirming cystinuria. After family conference, she remained asymptomatic with preserved renal function, adhering to pharmacological and nonpharmacological management. Cystinuria is an autosomal recessive disorder with prevalence of 1-5 per 10,000 population. It affects all age groups, commonly in adolescence and males. Key managements are urine alkalinization, high fluid intake, and dietary sodium/protein reduction. Obstructive stone often require surgical intervention. Lifelong nephrology and metabolic services follow-up are essential to prevent recurrence and renal complications. This case highlights comprehensive evaluation in paediatric nephrolithiasis to establish accurate diagnosis. Early recognition, appropriate metabolic work-up, definitive management and structured long-term follow-up are crucial in children with cystinuria.





ABSTRACT ID: PP 198

Title	A Case of Cydnidae Pigmentation Following Burrow Bug Bite.
Authors	Meera Vasanthakumar ¹ , R Ratnaranjith ¹ , Tharmini Danicious ¹ , Y E Derin ¹ , N K Edirisinghe ¹ , W A B S P Wickramasinghe ¹ , K T L A M Ranasinghe ¹ , Pabasara Perera ¹
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ABSTRACT

Introduction: Cydnidae pigmentation is extremely rare due to its under reported tendency and often people used to ignore its course of nature. Cydnidae insects commonly known as burrowbugs usually stay underground and feeding on roots of plants. The pigmentation is caused by the hydrocarbon which is produced by the special glands in the thorax of the adult bugs and abdomen of the nymph. The rash is like brownish globules and pigmentation around sweatglands in the dermoscopy

Case: A 12-year-old girl presented with unknown bite to right side sole, who developed multiple ecchymosis like non blanching rash on the sole, after one hour. The rashes were non itchy, non-tender and only involving the right sole and not disappear even after washing with soap and water. All examination findings are unremarkable except the rash. Her bloods were normal. Child was started on IV co-amoxiclav and antihistamines prescribed for the mild itching which developed later. Child also had a previous history of same kind of rash, in the face, 6 month back. A diagnosis of Cydnidae pigmentation was made based upon the history and the nature of the rash.

Conclusion: Asymptomatic atypical pigmentation may be secondary to many causes. But a clear history and examination guide us to the correct diagnosis. Though the Cydnidae pigmentation is very rare in Sri Lankan literature, always consider it as a cause when a child present with unknown bite with an atypical rash.





ABSTRACT ID: PP 199

Title	Mosaic Turner Syndrome With Triple X/Monosomy X Pattern in an Adolescent : Case Report
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ABSTRACT

Introduction: Turner syndrome is a genetic disorder affecting females, characterized by complete or partial absence of one X chromosome. This condition presents with short stature, delayed puberty, and various clinical manifestations. The syndrome occurs in approximately 1 in 2,500 female births, with mosaic patterns accounting for 15-20% of cases.

Case Presentation: A 13-year-old girl presented to the General paediatric ward for evaluation of short stature and delayed menarche. Her height was 135 cm (below 3rd percentile), weight 28 kg, and showed absence of secondary sexual characteristics with Tanner stage 1 breast development. Physical examination revealed classic Turner syndrome features including webbed neck, low posterior hairline, shield chest, and cubitus valgus. Cardiac examination was normal, and no lymphedema was observed. Laboratory investigations showed elevated follicle-stimulating hormone (FSH) and luteinizing hormone (LH) levels, consistent with primary ovarian dysgenesis. Cytogenetic analysis revealed mosaic karyotype 47, XXX(22)/45,X(11), indicating the presence of both triple X and monosomy X cell lines. Echocardiography showed normal cardiac structure. Renal ultrasound revealed no abnormalities. Planned to start growth hormone therapy and estrogen replacement therapy.

Conclusion: This case demonstrates Turner syndrome with an unusual mosaic karyotype combining triple X syndrome and classic Turner syndrome features. The 47, XXX/45,X mosaicism represents a rare chromosomal pattern, yet the patient exhibited typical Turner syndrome phenotype, emphasizing the importance of comprehensive clinical evaluation and cytogenetic analysis in growth disorders.





ABSTRACT ID: PP 200

Title

Benignant rareness with a amatic façade: Acute haemorrhagic oedema of infancy presentation in unusual age

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ABSTRACT

Introduction: This self-limiting illness runs a benign course and is a type of small vessel cutaneous vasculitis which usually present in age group of 04 to 24 months. Though aetiology is unknown usually present with a preceding infection, Vaccination or medication use. Present as Classical triad of fever, oedema and purpura predominantly over face and extremities. In contrast to the dramatic eruptions the infants are systemically stable.

Case presentation: We report a one-month-old infant, previously thriving well, who presented with an acute onset of generalized non blanching purpuric lesions, "target-like" in appearance, predominantly over the trunk and face, without mucosal involvement or oedema. Extremities were spared. The infant was afebrile and clinically well despite the striking skin findings. There were no bleeding manifestations, systemic signs suggestive of infection, or hepatosplenomegaly and nor he was icteric. There was no history to suggest possible congenital infections. Dermatology opinion confirmed the diagnosis. Inflammatory markers were negative along with normal platelet counts

ECG revealed no conduction blocks or arrhythmia. Lesion diameter and colour intensity increased initially, but after two weeks had a self-limited resolution without any scarring or complications.

Conclusion: This rare and often under recognized disease presented in the subject infant in an unusual age of one month without oedema, fever or any associated prior illness. Given the early neonatal onset and prominent facial involvement in this well infant neonatal systemic lupus erythematosus (SLE) was considered in the differential diagnosis. Other differentials would be sepsis, congenital infections, thrombocytopenia and coagulopathy.





ABSTRACT ID: PP 201

Title	Management challenges in a neonate with vein of Galen malformation and refractory cardiac failure
Authors	Udari Ruwanpathirana ¹ , Jithma Fonseka ¹ , Geeth Sooriyasena ² , Rohan Wickramasinghe ²
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ABSTRACT

Introduction: Vein of Galen malformation is a rare congenital cerebral Arteriovenous malformation with low resistance intracranial shunting which results heart to generate a high cardiac output in order to maintain systemic perfusion and eventually leads to a decompensated state with increased pulmonary hypertension.

Case Presentation: We report a day-one male neonate referred for further management at birth and he was tachycardic with a hyperdynamic precordium, bounding pulses, a continuous machinery murmur, and significant pre- and post-ductal oxygen saturation differences. Findings suggested high-output right heart failure with warm, well-perfused extremities. Cranial examination revealed a bulging anterior fontanelle with an audible bruit.

He developed refractory seizures, and therapeutic hypothermia was initiated for neuroprotection. Severe persistent pulmonary hypertension was treated with intravenous milrinone, with dopamine and dobutamine for inotropic support. Cranial ultrasound on day one demonstrated a cerebral venous malformation measuring 1.6×1.7×2.1 cm in the posterior thalamic region with adjacent parenchymal haemorrhages. Echocardiography showed prominent superior vena cava flow, a large patent ductus arteriosus, dilated internal jugular veins, and severe pulmonary hypertension with a tricuspid regurgitation gradient of 60 mmHg.

The Bicêtre score was below 8, indicating instability for intervention. Despite maximal medical therapy, the neonate died on day ten following massive pulmonary haemorrhage.

Conclusion: Clinical recognition in this exceptionally rare, antenatally undetected cases maybe difficult, necessitating meticulous bedside examination and evaluation. Poses significant challenges in managing the complications and definitive treatment would be staged endovascular embolization of the shunt. No definitive consensus reached worldwide related to the timing of neurosurgical interventions.





ABSTRACT ID: PP 202

Title	Born Within the Veil: Emergency En Caul Delivery in a 30-Week Preterm Infant
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ABSTRACT

Introduction: En caul delivery, where a newborn is delivered completely enclosed within the intact amniotic sac, is a rare and striking obstetric event, occurring in approximately one in eighty thousand births and more often in preterm and caesarean deliveries. While the intact sac may offer brief protection from mechanical trauma and cord compression, it can delay immediate access to the airway. In very preterm infants, even short delays in ventilation and thermal care can compromise early physiological adaptation.

Case presentation: A 30-week preterm infant with antenatal oligohydramnios, weighing 1.46 kg, was delivered by emergency caesarean section completely enclosed within the amniotic sac. The neonatology team promptly opened the sac, exposing the face and chest first, placed the infant in a polythene wrap, and transferred the baby under a radiant warmer to secure the airway and access the umbilical cord. At birth, the infant had poor respiratory effort with bradycardia. Standard neonatal resuscitation was initiated with airway positioning and positive pressure ventilation, while strict thermal protection and continuous monitoring was ensured. Following initial stabilization baby transferred to the neonatal intensive unit for ongoing supportive care.

Conclusion: Preterm En caul delivery represents a high-risk birth scenario that demands calm, coordinated action. Anticipation, clear communication, and protocol-based care are essential to minimize hypoxia, hypothermia, accidental cord injury, and delays in life-saving interventions during the first critical minutes after birth. Therefore, En caul delivery is a time-critical situation that requires anticipation, team readiness, and adherence to neonatal resuscitation protocols to ensure a safe transition to extrauterine life.





ABSTRACT ID: PP 203

Title	Caudal Regression Syndrome in a Neonate Born to a Mother with Type 2 Diabetes Mellitus
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ABSTRACT

Introduction: Caudal Regression Syndrome is a rare congenital anomaly characterized by varying degrees of agenesis of the sacrum and lumbar spine, frequently associated with musculoskeletal, genitourinary, gastrointestinal, and cardiac malformations. Although the exact pathogenesis remains unclear, a strong association has been established between this condition and maternal pre-gestational diabetes mellitus.

Case Presentation: A female neonate was delivered at term via elective lower segment caesarean section with a birth weight of 3.52 kg to a 38-year-old mother with type 2 diabetes mellitus on insulin therapy. The mother had two previous uncomplicated pregnancies with healthy offspring.

On examination, the neonate exhibited multiple congenital anomalies. There was shortening of the lower body segment with rhizomelic limb appearance. The lower limbs were positioned in a frog-leg posture with lower limb hypotonia. Bilateral overlapping toes and rocker-bottom feet were observed. The sacral dimple was absent. Plain radiography of the spine demonstrated absence of the sacrum. Spinal ultrasonography confirmed sacral agenesis, with the spinal cord terminating at a normal level and no evidence of meningocele.

Cardiovascular examination revealed a systolic murmur. Two-dimensional echocardiography identified complex cyanotic congenital heart disease with duct-dependent circulation. The parents were counselled regarding the guarded prognosis and the likelihood of staged palliative cardiac interventions. Multidisciplinary input was arranged for ongoing management.

Conclusion: Maternal diabetes is associated with a significantly increased risk of major congenital anomalies and neonatal morbidity. Strict preconceptional and antenatal glycaemic control is essential to minimize such risks. Early recognition and coordinated multidisciplinary care are crucial to optimize outcomes.





ABSTRACT ID: PP 204

Title

When the scalp tells a story: Adams-Oliver Syndrome

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ABSTRACT

Introduction: Adams-Oliver syndrome (AOS) is a rare congenital anomaly syndrome characterised by aplasia cutis congenita (ACC) of the scalp and terminal transverse limb defects. It demonstrates variable genetic heterogeneity, and the degree of organ involvement determines prognosis. Early recognition enables appropriate multidisciplinary management and facilitates parental counselling.

Case Presentation: A male neonate was delivered at 37 weeks of gestation via normal vaginal delivery to fourth-degree consanguineous parents, with a birth weight of 2255g. No resuscitation was required at birth. The pregnancy was complicated by maternal chronic hypertension superimposed with preeclampsia. There was no family history of a similar condition. Physical examination revealed a large scalp and skull defect over the vertex consistent with ACC, hypoplastic terminal limbs, and cutis marmorata telangiectatica congenita, fulfilling the clinical criteria for AOS. Initial investigations demonstrated coagulopathy and hepatic involvement, which resolved with supportive management. Threedimensional computed tomography confirmed a large bony defect at the vertex of the skull vault. Echocardiography revealed biventricular hypertrophy, while abdominal ultrasonography was normal. The neonate was managed with intravenous antibiotics for presumed sepsis and tolerated enteral feeds well. Scalp lesions were managed with debridement of necrotic skull bone and application of a Biodegradable Temporising Matrix (BTM) for staged reconstruction by the plastic and neurosurgical teams. Limb anomalies did not require urgent surgical intervention.

Conclusion: AOS requires a high index of clinical suspicion and a multidisciplinary management approach. Prenatal diagnosis may improve outcomes and facilitate early parental counseling.





ABSTRACT ID: PP 205

Title

A Rare Case of Intracranial Extension of a Congenital Oropharyngeal Teratoma: Multidisciplinary Airway and Surgical Challenges

Authors

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ABSTRACT

Introduction: Oropharyngeal teratomas are rare, mostly benign congenital tumors that can cause life-threatening airway obstruction. However, extensive lesions with skull base and intracranial extension cause significant surgical and airway management challenges.

Case Presentation: A 37-year-old mother delivered a term male infant via cesarean section. The pregnancy was complicated by gestational diabetes mellitus and polyhydramnios. A third trimester ultrasound detected an orofacial mass. The baby had APGAR scores of 7, 9, and 9, with a birth weight of 2020 g. At birth, a pedunculated mass arising from the floor of the mouth suggestive of a teratoma was observed. The neonate developed seizures and apneas, which progressively worsened, necessitating intubation on day seven of life.

Following stabilization, the mass was surgically excised, and histopathology confirmed immature cystic teratoma. However, a visible residual lesion remained, causing airway obstruction requiring tracheostomy. Imaging of the head and neck demonstrated a large solidcystic residual tumor involving and compressing the upper airway and eroding the left greater wing of the sphenoid and temporal bones with extradural extension into the left middle cranial fossa (MCF). Despite a second excision, there was residual tumor extending from the skull base to the submandibular space with MCF involvement. A Percutaneous Endoscopic Gastrostomy tube was inserted for feeding establishment and is awaiting optimization of weight prior to the next surgery.

Conclusions: This case highlights the complexity of managing massive oropharyngeal teratomas with MCF extension. Multidisciplinary care with staged surgical excision, airway stabilization, and careful preoperative optimization are essential to improve outcomes.





ABSTRACT ID: PP 206

Title

A Fatal Neonatal Presentation of Asphyxiating Thoracic Dysplasia (Jeune Syndrome)

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ABSTRACT

Introduction: Asphyxiating thoracic dysplasia (Jeune syndrome) is a rare hereditary skeletal disorder characterized by a constricted thoracic cage leading to life-threatening respiratory compromise. The condition carries a high neonatal mortality, with early diagnosis posing significant clinical and ethical challenges.

Case Presentation: We describe a preterm neonate born to non-consanguineous healthy parents following an antenatal course complicated by polyhydramnios. An anomaly scan raised suspicion of thoracic dysplasia.

Delivery was performed via emergency lower segment caesarean section at 34 weeks of gestation. The infant weighed 2.6 kg with a length of 38 cm. Postnatal examination revealed facial dysmorphism, rhizomelic limb shortening, a markedly narrow thoracic cage, and an associated omphalocele — features consistent with asphyxiating thoracic dysplasia.

Severe respiratory distress was evident from birth due to restricted thoracic expansion, necessitating ventilatory support. Despite intensive care measures, respiratory failure remained refractory, and the infant succumbed within 48 hours of life.

Conclusion: This case highlights the lethal impact of thoracic restriction in Jeune syndrome and underscores the vital role of antenatal suspicion in guiding parental counselling and perinatal preparedness. Early recognition transforms uncertainty into informed decisionmaking, enabling clinicians and families to anticipate the profound respiratory challenges and navigate care with clarity in the face of a condition where survival is often limited.





ABSTRACT ID: PP 207

Title	A Rare Case of Neonatal Cerebral Infarction
Authors	Bhagya Madhushani De Silva ¹ , Sachintha Dissanayake ¹ , Priyantha Dissanayaka ¹ , Achala Wanasinghe ¹
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ABSTRACT

Introduction: Neonatal Cerebral Infarction (NCI) is a rare diagnosis, caused by the occlusion of cerebral blood vessels, occurring from 28 weeks of gestation up to 28 days after birth. Though neonatal convulsions (NC) are common presentation, and early imaging with prompt diagnosis is crucial for a good prognosis.

Case Report: A baby girl was delivered via emergency lower segment cesarean section (LSCS) at term transferred from local hospital due to poor sucking with cyanosis and respiratory distress. On day 2, baby developed 3 episodes of generalized and focal convulsions. Metabolic causes were excluded and convulsions were managed with antiepileptics.

A 2D echocardiogram (2D Echo) revealed a fenestrated interatrial septum, with no pulmonary hypertension or dilated cardiomyopathy.

Lumbar Puncture (LP) showed low cerebrospinal fluid (CSF) glucose and otherwise normal findings. Magnetic Resonance Imaging (MRI) of brain demonstrated an acute infarction of the left temporo-parietal lobe. Further hematology consultation recommended investigating protein C and S, antithrombin levels, Factor V Leiden mutation, MTHFR gene mutation, and prothrombin gene mutation studies which later reported as normal. Child was managed conservatively with early multidisciplinary pediatric rehabilitation follow-up plan and regular antiepileptics.

Conclusion: Neonatal cerebral infarction commonly presents with convulsions, but clinicians should be mindful of atypical presentations. Symptoms typically develop within the first 48 hours of life. Although etiology is often unclear, LSCS is associated with a higher risk. Cranial imaging, particularly MRI, remains essential for definitive diagnosis, and treatment is primarily supportive.





ABSTRACT ID: PP 208

Title	Neonatal Diaphragmatic Paralysis After Tracheoesophageal Fistula Repair: A Case Report
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ABSTRACT

Introduction: Tracheoesophageal fistula (TEF) is a common congenital anomaly requiring early surgical correction. Though survival has improved considerably, postoperative respiratory complications remain a major cause of morbidity. Phrenic nerve injury leading to hemi diaphragmatic paralysis (HDP) is a rare, recognized complication after thoracic surgery in neonates. Management ranges from respiratory support to surgical diaphragmatic plication.

Case Presentation: A baby boy delivered at term with 3kg, presented with vomiting, bubbling, cyanosis and was diagnosed to have TEF. Baby had undergone TEF repair on day 2. The study of the upper gastrointestinal contrast on day 13 revealed a successful repair with no anastomotic leak.

Till day 45, extubation failure to Non-invasive positive pressure ventilation (NIPPV) and HFNO encountered thrice despite pre-extubation short course dexamethasone.

Further imaging by CECT and USS chest concurrently revealed right side diaphragmatic paralysis. Though non-operative trial with continuous pressure support via HFNO was considered, due to progressive worsening diaphragmatic elevation and increasing oxygen requirement, right sided diaphragmatic plication surgery was performed on day 80 of life.

Significant improvement in degree of respiratory distress noted postoperatively. HFNO therapy was weaned off by day 86 and baby was on room air with minimal chest indrawing. On 2-week post discharge review baby had no respiratory complications.

Conclusion: HDP should be suspected in neonates with failed extubation after TEF repair. Initial conservative management is reasonable; however, persistent respiratory compromise or ventilator dependence should prompt early diagnosis and diaphragmatic plication to improve respiratory mechanics.

Keywords: Tracheoesophageal fistula, Phrenic nerve injury, Hemi diaphragmatic paralysis.





ABSTRACT ID: PP 209

Title	Right Diaphragmatic Eventration Mimicking Morgagni Hernia in a Term Neonate; A Case Report
Authors	Manoshini Chryshanthi-Ethiraj ¹ , Rasaiah Mathan ¹
Affiliations	¹ Teaching Hospital Batticaloa, Sri Lanka

ABSTRACT

Diaphragmatic eventration is an abnormal elevation of weakened hemidiaphragm due to muscular aplasia or paralysis¹. Morgagni hernia represents an anterior defect of the diaphragm through the foramen of Morgagni². Though both are uncommon, presentation might be respiratory distress, radiological features mimicking cardiomegaly or mediastinal masses².

Case Presentation: A baby girl was delivered at term with 3.16kg, with normal antenatal scans. Baby developed tachypnea and peripheral cyanosis soon after delivery. Cardiovascular examination revealed a dual rhythm with normal blood pressure and pulse pressure, without audible murmurs.

A chest radiograph demonstrated a markedly enlarged cardiac silhouette. 2D echocardiography (2D ECHO) excluded true cardiomegaly, revealing a non-dilated left ventricle with normal systolic function and a small patent ductus arteriosus (PDA). However, a large extracardiac mass compressing the right atrium and ventricle was noted, suggestive of diaphragmatic hernia or diaphragmatic eventration.

On day 3, contrast-enhanced computed tomography (CECT) of the chest reported a rightsided anterior diaphragmatic (Morgagni) hernia with an approximately 3 cm defect.

The infant was transferred to a tertiary pediatric surgical center for definitive repair. Intraoperatively, no true diaphragmatic defect was identified, confirming the diagnosis of right diaphragmatic eventration. Surgical plication of the diaphragm was performed. The postoperative course was uneventful.

Conclusion: When evaluating neonates with apparent cardiomegaly and extracardiac thoracic masses, a high index of suspicion for diaphragmatic eventration should be maintained as diagnostic limitations of imaging modalities are associated. Prompt surgical management can result in excellent outcomes².

Keywords: Diaphragmatic eventration; Morgagni hernia; Neonate; Cardiomegaly mimic; Pulmonary hypoplasia





ABSTRACT ID: PP 210

Title	Feto maternal haemorrhage presenting as severe neonatal anaemia with secondary persistent pulmonary hypertension mimicking congenital heart disease
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ABSTRACT

Introduction: Clinically significant feto–maternal haemorrhage (FMH), defined as fetal blood loss exceeding 30 mL, occurs in approximately 1 in 300–1,000 deliveries, while massive FMH is considerably rarer. Severe cases may present with abnormal cardiotocography (CTG), profound neonatal anaemia and multiorgan dysfunction. Secondary persistent pulmonary hypertension of the newborn (PPHN) due to chronic intrauterine hypoxia may closely mimic structural congenital heart disease.

Case presentation: A baby girl was delivered at 36+6 weeks' gestation by emergency lower segment caesarean section for abnormal CTG. Birth weight was 3 kg and Apgar scores were 3, 4 and 8. She required immediate intubation due to significant pre and post ductal saturation difference and hypotension. Initial blood gas revealed severe metabolic acidosis (pH 7.07, lactate 11.5 mmol/L, base excess –19). Profound anaemia was detected (haemoglobin 5 g/dL) with elevated reticulocyte count. Echocardiography demonstrated PDA, ASD, VSD and moderate PPHN. Modified Kleihauer–Betke test showed 0.7% fetal red cells, consistent with >35 mL FMH. Following 20 mL/kg packed red cell transfusion, oxygen requirement reduced dramatically with haemodynamic stabilisation. The infant developed acute kidney injury (serum creatinine 2.9 mg/dL) and transaminitis (AST 330 U/L), both resolving with supportive management. Sepsis evaluation was negative.

Conclusions: Massive FMH should be suspected in neonates with severe unexplained anaemia and abnormal CTG. Prompt recognition and correction of anaemia can reverse secondary PPHN and prevent further organ injury.





ABSTRACT ID: PP 211

Title	Neonatal Ventilatory Failure Due to Double Aortic Arch Causing Tracheal Compression
Authors	Archchana Thiruloogamoorthy ¹ , M L K de Silva ¹ , Nalin Gammathige ¹ , Sanjeewa Sankalpa Marasinghe ¹ , Chathura Rajapathirana ² , Udara Wickramarathne ¹ , Safa SM ¹ , Niththiyaruban Sivasubramaniam ³
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ABSTRACT

Introduction: Double aortic arch is a rare congenital vascular anomaly in which the aorta forms a complete ring around the trachea and oesophagus, resulting in airway compression. It is the most common type of complete vascular ring and often presents early in life with respiratory symptoms. Early recognition is essential, particularly in neonates with unexplained ventilatory failure and normal lung imaging.

Case presentation: A term neonate developed inspiratory stridor within hours of birth, progressing rapidly to severe respiratory distress requiring endotracheal intubation and mechanical ventilation. Despite appropriate ventilator settings and confirmed tube position, the infant exhibited persistent carbon dioxide retention with respiratory acidosis, while oxygenation remained relatively preserved. Chest radiography showed clear, well-expanded lung fields. As hypercapnia was disproportionate to radiological findings, extrinsic airway obstruction was suspected. Echocardiography suggested a double aortic arch with tracheal compression, along with an ostium secundum atrial septal defect and moderate tricuspid regurgitation. Aortic angiography and bronchography confirmed a dominant left aortic arch and a smaller right arch forming a complete vascular ring with tracheal indentation above the carina. Surgical division of the non-dominant arch was performed, resulting in marked clinical improvement and successful weaning from respiratory support.

Conclusions: Double aortic arch should be considered in neonates presenting with early stridor and unexplained ventilatory failure, particularly when lung imaging is normal. Prompt diagnosis and timely surgical intervention lead to favourable outcomes.





ABSTRACT ID: PP 212

Title	Beyond the Classical VACTERL Spectrum: A Rare Phenotype with Bifid Ribs and Complicated Surgical Management of Oesophageal Atresia
Authors	Dilshan Wimalasena ¹ , Nimasha Wimalaguna ¹ , Kandasamy Sunsaluja ¹ , Parami Kahandawa ¹ , Nishan Perera ¹ , Kanchana Kumuduni ¹ , Kapilani Withanaachchi ¹ , Kasthuri Sembakutti ¹
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ABSTRACT

Introduction: VACTERL/VATER association is conventionally diagnosed when three or more of the following congenital anomalies are present: vertebral defects, anal atresia, cardiac abnormalities, Oesophageal defects, renal anomalies, and limb defects. Bifid rib is a rare association of VACTERL anomaly. Here we present a rare case of VACTERL anomaly where Oesophageal Atresia(OA) needed complicated multistage surgical interventions.

Case Presentation: A male neonate was delivered at 36 weeks of gestation via emergency Caesarean section for polyhydramnios, with a birth weight of 2440 g. Postnatal evaluation revealed a butterfly vertebra, a bifid rib, a moderate-sized ostium secundum atrial septal defect, OA, and a left-sided duplex kidney. The proximal esophageal pouch was markedly dilated at the level of the azygos vein, while the distal segment appeared as a small protrusion at the diaphragmatic hiatus.

On day 3 of life, he underwent right posterolateral thoracotomy and primary OA repair. The postoperative course was complicated by an anastomotic leak. Subsequently, on days 19, 26, and 54 of life, he required repair of the anastomotic site with feeding jejunostomy, laparotomy with gastrostomy creation, and central oesophagostomy formation, respectively. His hospital course was further complicated by chylothorax and secondary lactose intolerance which were managed accordingly. Despite the prolonged and complex clinical course, the infant was eventually stabilized with weight gain and discharged.

Conclusion: VACTERL association may present with rare phenotypic variations. Long-gap esophageal atresia is surgically challenging, and its management remains controversial. The initial attempt to do primary repair was unsuccessful, ultimately necessitating alternative staged surgical interventions.





ABSTRACT ID: PP 213

Title	Successful Delayed Interval Delivery of Dichorionic Diamniotic Twins with Favourable Outcome of Both Twins
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ABSTRACT

Introduction: Twin pregnancies carry a high risk of preterm birth (57.4%). Delayed interval delivery (DID) is a rare intervention to prolong gestation for the second twin following the previable delivery of the first. Survival of both twins following DID is exceedingly rare in documented literature.

Case Report: A mother with a history of four second-trimester miscarriages due to cervical insufficiency underwent prophylactic cerclage. At 25 weeks, she delivered the first twin (580g). The umbilical cord was ligated in situ; the second twin and both Placenta remained in utero under stringent monitoring, infection control, and tocolysis. After a 52-day latency period, the second twin was delivered at 32 weeks, weighing 1.8 kg.

The first twin required extensive NICU care for extreme prematurity, receiving surfactant therapy and mechanical ventilation, management of neonatal sepsis, apnea, coagulopathy, and bronchopulmonary dysplasia. Following nutritional rehabilitation with donor breast milk, the infant was discharged after 95 days (1.6 kg) with normal neurodevelopment. The second twin required only routine SCBU care and was discharged at 34 weeks corrected age in good health.

Conclusion: This case demonstrates the feasibility of DID in DCDA twin pregnancies, even in resource-limited settings. Success requires rigorous maternal monitoring and specialized neonatal care. This report contributes to the sparse literature on dual twin survival, representing the longest inter-delivery interval documented in the local literature.





ABSTRACT ID: PP 214

Title	A Severe Case of Congenital Ichthyosis in a Collodion Baby
Authors	Sithy Zulaiha Zuhair ¹ , P.M. Arshath Ahamed ¹
Affiliations	¹ Base Hospital Sammanthurai, Sri Lanka

ABSTRACT

Introduction: Collodion babies are a rare entity with a myriad of outcomes and prognosis, relating to disorders of cornification. Congenital autosomal recessive ichthyosis (CARI) usually presents at birth, often as a collodion baby. This is a case of a possible CARI with severe ichthyosis.

Case Presentation: A baby girl, born preterm following spontaneous onset of labour at 32 weeks to healthy first time parents was noted to have a tight, shiny parchment membrane at birth. Facial distortion was present with bilateral eyelid ectropion, eclabium and fish-mouth appearance. The only risk factor was the consanguineous marriage between parents. On day 3 the membrane started peeling, revealing thick skin with rapid shedding and growth of skin, causing hypernatremic dehydration, and later hypoalbuminemia. Cannulation remained to be difficult due to the severe ichthyosis which progressed over the following days and weeks.

The baby was managed with dermatology and ophthalmology follow up, emollients and lowpotency steroid application and eye care. There was good weight gain, but the ichthyosis was severe. At 2 months of age, a trial of oral retinoids was started with the parents' consent. However, there was no significant improvement, and the baby succumbed to an event of severe skin sepsis at the age of 4 months.

Conclusion: The severity and prognosis of congenital forms of ichthyosis are dependent on the time of diagnosis and the type of ichthyosis. This was a severe case with poor prognosis despite early detection and multidisciplinary management.





ABSTRACT ID: PP 215

Title	Incontinentia Pigmenti in a Neonate: A Rare Presentation
Authors	Sithy Zulaiha Zuhair ¹ , P.M. Arshath Ahamed ¹
Affiliations	¹ Base Hospital Sammanthurai, Sri Lanka

ABSTRACT

Introduction: Incontinentia Pigmenti (IP) is a rare X-linked dominant disorder affecting ectodermal tissues, often misdiagnosed in the neonatal period. We present a rare case, highlighting the multitude of symptoms and diagnostic challenges seen in early infancy.

Case Presentation: A day 3 baby girl presented with a generalized erythematous rash with occasional blisters, initially thought to be extensive erythema toxicum. The following day she developed short lasting convulsions that were brought under control with anti-seizure medications on day 5. The mother had no risk factors for sepsis, no previous miscarriages, and the antenatal and post-natal periods were uneventful. There was no family history of metabolic diseases. Septic screen was normal, but markedly elevated eosinophils were seen, with giant cells visualized on skin scrapings. PCR for HSV 1 & 2, VZV, and JEV IgM were negative. Ultrasound scan brain revealed cerebral oedema but no structural abnormalities.

Over the next few days the rash evolved into a typical vesicular rash, followed by a hyperpigmented rash along lines of Blaschko. The typical skin manifestation, together with a high eosinophil count favoured a clinical diagnosis of Incontinentia Pigmenti. At 18 months of age, she is thriving well but has had 3 episodes of severe sepsis. There is no dental eruption, and she persists to have hypopigmented streaks.

Conclusion: Incontinentia Pigmenti is an extremely rare X-linked dominant genetic disorder due to mutations in the IKBKG gene, causing ectodermal manifestations evolving through 4 stages. Severe cases may involve the nervous and immune system as in this patient.





ABSTRACT ID: PP 216

Title	Long QT syndrome -type 3 detected in the immediate post-natal period in a resource limited setting.
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ABSTRACT

Introduction: Long QT syndrome (LQTS) is an inherited electrical cardiac abnormality with a prolonged QT interval. LQTS can present early in life and has a 20% association with sudden unexplained infant deaths (SUID). Fetal diagnosis, routine neonatal ECG screening and genetic testing help in early detection.

Case history: A term baby boy was sen on day one of life due to bilateral talipes equinovarus deformity. Baby was born to non-consanguineous parents with a weight of 3.165 kgs. Antenatal period was uncomplicated including anomaly scans. On examination, baby was found to have an irregular heart rate and a soft ejection systolic murmur at the left upper sternal edge. Baby's heart rate was 92 bpm. No pre and post ductal saturation difference noted. There were not anydysmorphic features. Except bilateral talipes deformity, rest of the neonatal examination was normal. ECG showed sinus rhythm and a prolonged QT interval (600 ms). Axis and other segments on ECG were normal. All serum electrolytes were normal. A small osteum secundum Arterial Septal Defect was found on echo-cardiography. Halter monitoring confirmed LQTS. With electrophysiologists opinion oral propranolol 1.5 mg 8 hourly was started and subsequently increased to 3 mg 8 hourly. Genetic studies for definitive diagnosis were not done due to unavailability. Baby's TSH and hearing screening was normal. Family members were screened with ECGs and were normal.

Conclusion: Thorough examination and vigilant monitoring help in early detection of cardiacrhythm abnormalities even in resource poor settings.





ABSTRACT ID: PP 217

Title	Case Report: Early Diagnosis of Maple Syrup Urine Disease in a Neonate With Hyperammonaemia and Seizures
Authors	Wickramasooriya Arachchige Chamodi Madushani Shanika Wijerathne ¹ , Abeykoon Jalath Rathnayake Osman Smith ¹ , Nalika Manike ¹ , Milinda Atapattu ¹ , A Smarathunga ¹
Affiliations	¹ National Hospital, Kandy, Sri Lanka

ABSTRACT

Introduction: Maple syrup urine disease (MSUD) is a rare autosomal recessive disorder affecting branched-chain amino acid metabolism. Early diagnosis is crucial as delayed treatment can lead to severe neurological complications and death. This case highlights the importance of metabolic screening in neonates presenting with neurological symptoms.

Case Presentation: A 7-day-old term male neonate, born via normal vaginal delivery to nonconsanguineous parents, presented with increased tonicidity of all four limbs. The infant had been feeding poorly for two days prior to presentation. Physical examination was unremarkable. Notably, no characteristic maple syrup odour was detected in the urine. Laboratory investigations showed elevated serum ammonia levels at 152 $\mu\text{mol/L}$. Arterial blood gas analysis was within normal limits with no evidence of metabolic acidosis. Blood glucose and electrolytes were normal. Given the clinical presentation and hyperammonaemia, metabolic screening was performed. Plasma amino acid analysis revealed significantly elevated levels of leucine + isoleucine (1304.177 $\mu\text{mol/L}$), Leucine/Phenylalanine (26.63), Leucine/Alanine (16.69) and valine (496 $\mu\text{mol/L}$) confirming the diagnosis of MSUD. The infant was immediately started on a branched-chain amino acid-restricted formula and supportive care. Seizures were controlled with anticonvulsants. The patient showed gradual clinical improvement with normalization of amino acid levels over the following weeks.

Conclusion: MSUD should be considered in neonates presenting with unexplained seizures and hyperammonaemia, even in the absence of the characteristic urine odour. Early diagnosis through amino acid profiling and prompt dietary management are essential for preventing irreversible neurological damage.





ABSTRACT ID: PP 218

Title	Case Report: Fatal Congenital Myopathy Presenting With Neonatal Respiratory Distress and Hypotonia
Authors	Wickramasooriya Arachchige Chamodi Madushani Shanika Wijerathne ¹ , Abeykoon Jalath Rathnayake Osman Smith ¹ , Chandana Kekulawala ¹
Affiliations	¹ National Hospital, Kandy, Sri Lanka

ABSTRACT

Introduction: Congenital myopathies are rare inherited muscle disorders that often present in the neonatal period with hypotonia and respiratory compromise. Early recognition is crucial but challenging due to nonspecific clinical features.

Case Presentation: A term female neonate was born via normal vaginal delivery to a 22-year-old primigravida mother with third-trimester polyhydramnios. Immediately after birth, the infant presented with mild respiratory distress and generalized hypotonia. APGAR scores were 6 and 10 at 1 and 5 minutes respectively. On day two, the neonate developed convulsions. Persistent respiratory distress worsened on day 16, requiring intubation and mechanical ventilation. Multiple extubating attempts over following weeks failed, with consistent recurrence of respiratory distress. Standard investigations including chest radiography, echocardiography, and metabolic panels were unremarkable. Given persistent ventilator dependence, ENT consultation was obtained and muscle biopsy performed. Tracheostomy was done at day 33 for long-term ventilatory support. Muscle biopsy revealed histopathological features consistent with congenital myopathy, including fiber size variation, central nuclei, and structural abnormalities. Post-tracheostomy, the infant showed improved respiratory status with satisfactory spontaneous breathing. The child was discharged home on tracheostomy care without mechanical ventilation. Tragically, the patient died at home on day 5 following discharge.

Conclusion: This case highlights the diagnostic challenges of congenital myopathy in neonates with respiratory failure. Muscle biopsy provided crucial diagnostic confirmation, enabling appropriate prognostic counseling and palliative care planning for the family. Early consideration of neuromuscular disorders is essential in neonates with unexplained hypotonia and ventilator dependence.





ABSTRACT ID: PP 219

Title	A Rare Case of Dextrocardia in Mosaic Trisomy 18 baby
Authors	Bhagya Madhushani De Silva ¹ , Priyantha Dissanayaka ¹ , Jeewani Hettiarachchi ¹
Affiliations	¹ Teaching Hospital Badulla, Sri Lanka

ABSTRACT

Introduction: Trisomy 18, also known as Edwards syndrome, is autosomal chromosome disorder with extra chromosome at 18. It presents major and minor anomalies that involve almost all the systems in the body while reporting significant morbidity in 1st year of life. Dextrocardia is a congenital deformity due to embryonic formation causing heart residing in right side of thoracic cavity associated with multiple congenital heart defects. Here we describe a rare occasion of dextrocardia associated with Mosaic Trisomy 18.

Case Report: This baby girl delivered at 33+1 weeks with 1.12kg of severe intrauterine growth retardation (IUGR). Antenatal Ultrasound (USS) revealed congenital heart defects and features suggestive of syndrome. Baby received non-invasive ventilation due to persistent respiratory distress. Chest Xray (CXR) showed heart in right side of the chest with normally placed liver. 2D echocardiogram (2D Echo) revealed situs solitus, dextrocardia, atrio ventricular canal defect, and mild pulmonary stenosis. Karyotyping was reported as 47,XX,18[37]/46,xx,[2] suggestive of mosaic Edwards Syndrome. Baby expired on day 34 due to heart failure unresponsive to medical management.

Conclusion: Though dextrocardia is a rare occasion, it is suggestive to investigate geneaneuploidy in dextrocardia or dextroposition in a neonate.





ABSTRACT ID: PP 220

Title

Right Atrial Isomerism (Asplenia Syndrome) in a Neonate

Authors

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¹DGH Ampara, Sri Lanka

ABSTRACT

Introduction: Right atrial isomerism (RAI), also known as asplenia syndrome, is a severe form of heterotaxy characterized by abnormal thoracoabdominal organ lateralization and complex congenital cardiac malformations. Affected neonates commonly present at birth with cyanosis and respiratory distress and are at increased risk of overwhelming sepsis due to functional or anatomical asplenia. Early recognition is crucial to facilitate prompt cardiac evaluation, infection prophylaxis, and multidisciplinary management.

Case Report: A late preterm female neonate (36+1 weeks' gestation) from a dichorionic diamniotic twin pregnancy presented with persistent respiratory distress, central cyanosis, and a cardiac murmur shortly after birth. Systemic examination was otherwise unremarkable. The infant was admitted to the neonatal intensive care unit for further evaluation and management. Echocardiography demonstrated situs ambiguous with right atrial isomerism, an unbalanced common atrioventricular canal defect, and truncus arteriosus. Abdominal ultrasonography revealed a midline liver, absent spleen, abnormal great vessel orientation, and suspected midgut malrotation. Management included cardiorespiratory stabilization, cardiology consultation, and initiation of antibiotic prophylaxis for asplenia.

Discussion: This case emphasizes that neonatal cyanosis unresponsive to oxygen therapy should prompt consideration of heterotaxy syndromes. Early diagnosis of RAI allows timely stabilization, initiation of infection prophylaxis, parental counseling, and coordinated multidisciplinary follow-up to improve outcomes.





ABSTRACT ID: PP 221

Title	Solitary Mastocytoma of Infancy
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Affiliations	¹ DGH Ampara, Sri Lanka

ABSTRACT

Introduction: Solitary mastocytoma (SM) represents the most localized and benign form within the spectrum of mastocytosis. It is predominantly a paediatric condition and usually presents during infancy or early childhood. Congenital presentations are uncommon and may pose diagnostic challenges, particularly in distinguishing isolated cutaneous involvement from systemic mastocytosis. Accurate diagnosis is essential to guide management and avoid unnecessary invasive investigations.

Case Report: A full-term male neonate, born at 38 weeks' gestation with a birth weight of 2.95 kg, was admitted to the Neonatal Intensive Care Unit at District General Hospital, Ampara, following identification of a congenital abdominal nodule. On clinical examination, the infant was clinically stable, not pale, and had no significant hepatosplenomegaly or lymphadenopathy. No neurocutaneous abnormalities were observed; however, the lesion demonstrated a positive Darier sign. Initial investigations, including abdominal ultrasonography, were normal. Serum tryptase level was mildly elevated at 12.5 ng/mL. In view of this finding, the infant was referred to the National Cancer Institute (Apeksha Hospital), Maharagama, for further evaluation. Bone marrow aspiration and histopathological assessment excluded systemic mastocytosis and confirmed localized cutaneous mast cell proliferation, consistent with a diagnosis of solitary mastocytoma.

Discussion: This case underscores the importance of a structured diagnostic approach and multidisciplinary collaboration in the evaluation of congenital mast cell disorders. Early exclusion of systemic involvement allowed for conservative management and reassurance of the family, with an excellent prognosis expected.





ABSTRACT ID: PP 222

Title

Recurrent Pulmonary Valve Endocarditis Complicated by Septic Pulmonary Embolism in a Child with Repaired Tetralogy of Fallot.

Authors

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ABSTRACT

Introduction: Pulmonary valve infective endocarditis is a rare entity that may occur in children following corrective surgery for congenital heart disease and carries a significant risk of septic pulmonary embolism.

Case: 10-year 7 months-old girl with Tetralogy of Fallot with pulmonary atresia, ventricular septal defect underwent left modified Blalock-Taussig shunt at 1 year 2 months of age followed by definitive repair with trans-annular patch, left pulmonary artery plasty and re-anastomosis at 9 years 9 months.

Post repair she developed pulmonary valve infective endocarditis at 10 years 4 months, treated with intravenous antibiotics. Serial echocardiography demonstrated reduction in vegetation size. This time she presented with 4-day history of fever and cough.

On examination, BMI-11.36kgm⁻². She was hemodynamically stable. She had a systolic murmur, RR-20/min, Spo₂ -98%, reduced air entry on the right lower zone, mild splenomegaly on clinical examination. No peripheral stigmata of infective endocarditis.

FBC had persistent leukocytosis, anemia, and thrombocytopenia. CRP-182 mg/L, ESR- 131 mm/hr, Blood cultures were negative.

Echocardiography- tiny residual VSD, small OS ASD, mild MR, persistent pulmonary valve vegetation (6.4 × 4.7 mm), and a new small vegetation on the right ventricular side of the pulmonary valve.

Contrast-enhanced CT chest demonstrated septic pulmonary emboli with evidence of pulmonary valve vegetation, fusiform aneurysm of the right proximal descending pulmonary artery, emphysematous changes in right lower lobe. Despite intravenous antibiotics, multidisciplinary management, she deteriorated, and succumbed.

Conclusions: Management requires intravenous antibiotics, echocardiographic monitoring, and multidisciplinary care, with surgical interventions indicated for persistent infection, hemodynamic compromise or recurrent septic pulmonary embolism.





ABSTRACT ID: PP 223

Title

Unexplained Tachycardia in a Toddler: A Presentation of Severe Viral Myocarditis

Authors

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Affiliations

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ABSTRACT

Introduction: Acute viral myocarditis is an important cause of sudden cardiac dysfunction in previously healthy children. It may present with nonspecific symptoms such as vomiting, irritability, or respiratory distress, and can rapidly progress to acute heart failure, malignant arrhythmias, and death. Among viral etiologies, Parvovirus B19 is a recognized cause of myocardial inflammation and dilated cardiomyopathy. Early recognition and aggressive supportive management are crucial, though outcomes remain unpredictable.

Case Presentation: A previously healthy 2-year-3-month-old girl presented with six episodes of vomiting over one day. Her mother reported palpitations. On examination, she was tachycardic (pulse rate 168 bpm) with a gallop rhythm and mild hepatomegaly. Electrocardiogram showed sinus tachycardia. Two-dimensional echocardiography revealed moderate-to-severe left ventricular dilatation with severe systolic dysfunction; ejection fraction was 39%.

She was admitted to the paediatric intensive care unit and commenced on high-flow nasal oxygen, intravenous milrinone infusion, intravenous furosemide infusion, oral spironolactone, intravenous immunoglobulin, and intravenous methylprednisolone with careful fluid management. Serology for Parvovirus B19 was positive, and a diagnosis of viral myocarditis was made.

Despite intensive management, she developed non-sustained ventricular tachycardia on day five, followed by cardiac arrest requiring intubation and synchronized intermittent mandatory ventilation. The following day, she developed ventricular fibrillation leading to refractory cardiac arrest and succumbed to acute heart failure.

Conclusion: This case highlights the fulminant course of viral myocarditis in young children and its potential for rapid deterioration despite aggressive therapy. Early suspicion in children presenting with unexplained tachycardia and gastrointestinal symptoms is essential to improve timely diagnosis and management.





ABSTRACT ID: PP 224

Title	Hypoplastic Left Heart Syndrome Presenting At One Month Of Life; A Case Report
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ABSTRACT

Introduction: Hypoplastic Left Heart Syndrome (HLHS) is a critical congenital cardiac malformation occurring in 1–2 per 1000 live births, defined by anatomic and functional inadequacy of the left side of the heart with non-viability of the left ventricle to perform systemic perfusion, HLHS typically presents in the early neonatal period following ductal closure, without timely intervention, rapid cardiovascular collapse is expected.

Late presentation beyond the neonatal period remains rare but possible.

Since the introduction of the Norwood procedure along with advances in prenatal diagnosis, neonatal care, surgical techniques, survival outcomes have improved significantly. HLHS can be diagnosed prenatally by fetal echocardiography.

Case Presentation: We report an unusual case of HLHS presenting at one month of age to the out-patient clinic with features of heart failure, diagnosing HLHS, later succumb to death. This term baby with good birth weight and Apgars did not exhibit typical early features and was clinically stable postnatally at discharge, with normal pre-post-ductal oxygen saturations, peripheral pulses and blood pressure. He was followed up for R/dysplastic kidney and a soft, non-specific cardiac murmur. Echocardiogram showed critical aortic coarctation, with hypoplastic arch proximal to isthmus, severe mitral stenosis and poorly formed left ventricle.

Conclusion: Late presentation of HLHS is rare but possible. Atypical ductal behaviour, collateral circulation, or partial left heart function may temporarily maintain stability beyond neonatal period.

Late-presenting HLHS has a high risk of sudden deterioration, emphasizing the importance of early detection, especially in cyanotic infants with poor weight gain or unexplained heart failure.





ABSTRACT ID: PP 225

Title	Novel LIPA Gene Variant in Wolman Disease: Case report from Sri Lanka
Authors	Kayalvily Perinpanayagam ¹ , Harshika Wanniachchige ¹ , Deepal Perera ¹ , Gayani Anandagoda ² , Vajira H.W. Dissanayake ²
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ABSTRACT

Introduction: Wolman disease is a rare, severe autosomal recessive lysosomal storage disorder caused by deficiency of lysosomal acid lipase due to pathogenic variants in the LIPA gene. The estimated global incidence is less than 1 in 100,000 live births. It typically presents in early infancy with progressive hepatosplenomegaly, adrenal calcifications, cholestatic jaundice, dyslipidemia, and rapid clinical deterioration. Without treatment, it is usually fatal within the first year of life.

Case Presentation: A two-month-old infant born to second-degree consanguineous parents presented with prolonged jaundice, pallor, and progressive abdominal distension. There were no significant gastrointestinal or metabolic symptoms at onset. Examination revealed deep icterus and massive, firm hepatosplenomegaly. Laboratory evaluation showed pancytopenia, deranged liver function tests, and an atherogenic lipid profile. Abdominal imaging demonstrated bilateral adrenal calcifications. Bone marrow examination revealed foamy histiocytes, while liver biopsy showed micronodular cirrhosis. Based on clinical, biochemical, and radiological findings, a presumptive diagnosis of Wolman disease was made. However, confirmatory enzyme assay and molecular testing were not performed due to financial constraints. Despite supportive management, the baby succumbed within one week of hospitalization. Subsequently, a sibling presented with a similar phenotype, and genetic testing confirmed a homozygous 63-bp deletion in exon 6 of the LIPA gene (Chr10(GRCh37): g.90984849_90984911del).

Discussion: This represents the first reported novel LIPA variant causing Wolman disease from Sri Lanka. The case highlights the importance of early clinical suspicion, access to genetic testing, and appropriate genetic counseling, particularly in consanguineous families.





ABSTRACT ID: PP 226

Title

Novel biallelic ZNFX1 variants expand the clinical spectrum of type I interferonopathies to include interstitial lung disease

Authors

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ABSTRACT

Zinc finger NFX1-type containing 1 (ZNFX1) is a double-stranded RNA sensor; its deficiency is a recently described inborn error of immunity characterised by susceptibility to viral infections systemic inflammation, and type I interferon (IFN-I) activation. However, its full phenotypic spectrum remains incompletely defined. We report a 1-year-old girl presenting with uncorrectable anemia, growth delay, digital clubbing, and interstitial lung disease (ILD) characterized by markedly elevated KL-6 levels and patchy pulmonary opacities. Trio exome sequencing identified novel compound heterozygous ZNFX1 variants, including a paternally inherited frameshift variant (c.981dup) and two maternally inherited variants (c.1605_1630delinsGGGAATATCGTGGA and c.2893G>A). Transcriptome analysis confirmed reduced ZNFX1 expression, while structural modeling suggested impaired protein stability. Functional studies in peripheral blood mononuclear cells revealed significant upregulation of interferon-stimulated genes, including OASL, LY6E, and DDX58, confirming aberrant IFN-I activation. The patient showed clinical improvement following immunomodulatory therapy with glucocorticoids and tocilizumab. These findings expand the phenotypic spectrum of ZNFX1 deficiency to include ILD and emphasize the role of dysregulated IFN-I signaling in its pathogenesis, suggesting that ZNFX1 should be considered in the differential diagnosis of childhood interstitial lung disease (chILD).





ABSTRACT ID: PP 227

Title	Two cases of successful sirolimus treatment for patients with activated phosphoinositide 3-kinase γ syndrome 1
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ABSTRACT

Background: Activated phosphoinositide3-kinase (PI3K) γ syndrome 1 (APDS1) is a novel inborn errors of immunity (IEIs) caused by heterozygous gain of function mutations in PI3K γ catalytic p110 γ (PIK3CD). APDS1 has a spectrum of clinical manifestations. Recurrent respiratory infections, lymphoproliferation, hepatosplenomegaly, hyper-IgM syndrome and autoimmunity are the common symptoms of this disease.

Case Presentation: Patient 1 presented with recurrent respiratory infections, hepatosplenomegaly and hyperIgM syndrome. Patient 2 developed early onset systemic lupus erythematosus (SLE)-like disease with resistant thrombocytopenia. c.3061 G>A and c.2314G>A variants in the PIK3CD gene were detected by whole exome sequencing in two patients respectively. c.2314G>A variant in PIK3CD gene of patient 2 is a newly report. After genetic diagnosis, two patients received sirolimus treatment and sirolimus alleviated clinical manifestations, including hepatosplenomegaly in patient 1 and thrombocytopenia in patient 2.

Conclusion: Genetics diagnosis should be considered in patients with complicated clinical manifestations with no or insufficient response to the conventional therapies. If whole exome sequencing suggests a variant in PIK3CD gene, sirolimus may relieve hepatosplenomegaly and resistant thrombocytopenia. This is the first report of c.2314G>A variant in PIK3CD gene. 387





ABSTRACT ID: PP 228

Title	Hypocalcemia and Myopathy: a Presentation with Dual Genetic Pathology
Authors	Anuruddhika Prasadi Hengedara Withana ¹ , Reha Balasubramaniam ¹ , Vindya Subasinghe ¹ , Navoda Atapattu ¹ , Pyara Ratnayake ¹
Affiliations	¹ Lady Ridgeway Hospital, Sri Lanka

ABSTRACT

Introduction: Dual pathology in a clinical setting is rare. We report a case with 2 genetic conditions; Tubular Aggregate Myopathy (TAM) and hypoparathyroidism.

TAM is an autosomal dominant congenital myopathy caused by variant in STIM1 gene. Genetic & rare diseases information center does not have epidemiological data of TAM

Though the worldwide data together with TAM & hypoparathyroidism is lacking, prevalence in Japan is reported as 7.2/million.

Case Presentation: A 16-year-old girl, born to nonconsanguineous healthy parents without any family history, evaluated for proximal muscle weakness since age 1 ½ yrs. At age 14, she had fractures of right femur and forearm & carpopedal spasms. On examination, had waddling gait, positive Gower's sign, calf muscle-hypertrophy. The power was 4/5 on MRC scale. Reflexes normal. There was no upper limb involvement.

Investigations revealed creatine phosphokinase-3710 IU/L and chronic atrophic changes with fatty replacement in muscles on Muscle MRI.

Initial analysis of Whole exome sequencing (WES) picked up a heterozygous pathogenic variant in STIM1 gene; c.326A>G (p. His109Arg). Reanalysis of WES had been requested following detection of low calcium (1.93mmol/L), increased phosphate (1.82mmol/L), low ALP (55U/L) and low normal PTH (2.61pmol/L), when a likely pathogenic variant in PTH gene (c.2T>C (p. Met1?)) has been identified.

Calcium and vitamin D supplements started and continued with specific exercises.

Conclusion: This case report highlights the possibility of the coexistence of 2 genetically proven diseases. Precise identification of disease provides precision treatment for each disease with good outcome for the patient and to avoid diagnostic dilemma.





ABSTRACT ID: PP 229

Title	3p deletion syndrome -A rare cause of Developmental Delay and Dysmorphic features
Authors	Aashika Maria Naidu ¹
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ABSTRACT

Introduction: Developmental delay is a term for children below 5 years who have delay in attaining milestones in two or more domains. Causes include infection, prematurity, metabolic causes, hypoxic ischemia, trauma and 20% of cases include genetic syndromes. Genetic syndromes include Fragile X, Prader-Willi, Angelman, Rett syndrome. These syndromes can be diagnosed by genetic testing which identify changes in genes, chromosomes or proteins.

Case: A 9-month-old female child born to non-consanguineously married couple with history of two abortions presented with history of developmental delay with congenital hypothyroidism since 1 month of age & seizures from 4 months of age. Child attained partial head control, bidextrous reach and was able to recognize her mother. On examination, Dysmorphic features in the form of hypertelorism, low set ears with preauricular sinus, depressed nasal bridge, macroglossia with high arched palate and short neck. Spine examination revealed scoliosis. Nervous system examination showed generalized hypotonia with diminished deep tendon reflexes. Chest X-ray done showed 13 ribs on the right side with 11 ribs on the left side.

As the clinical examination showed Dysmorphic features suggestive of genetic disease, genomic DNA for exome sequencing and deletion analysis was done, which revealed 3p26.3 – p25.3 Heterozygous deletion confirming the diagnosis of 3p deletion syndrome.

Conclusion: 3p deletion syndrome is a rare disorder characterized by intellectual disability, motor developmental delay, dysmorphic features such as microcephaly, micrognathia, ptosis, long philtrum, low set ears, polydactyly and hypotonia. Other rarer symptoms include congenital heart disease, renal, gastrointestinal malformations, autism, congenital hypothyroidism, seizures.





ABSTRACT ID: PP 230

Title

Severe Vitamin B12 Deficiency Presenting with Nephrotic-Range Proteinuria in a Toddler: A Case of Imerslund–Gräsbeck syndrome

Authors

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ABSTRACT

Background: Imerslund–Gräsbeck syndrome is a rare autosomal recessive disorder caused by mutations affecting the cubam receptor complex (CUBN or AMN genes), leading to selective intestinal malabsorption of vitamin B12. The condition is characterized by early-onset megaloblastic anemia and persistent, non-progressive proteinuria. As vitamin B12 plays a critical role in DNA synthesis and neurological development, delayed diagnosis may result in pancytopenia, growth failure, and irreversible neurodevelopmental impairment.

Case Presentation: A 1-year-5-month-old girl presented with reduced activity and generalized body swelling. Examination revealed severe pallor, moderate sized hepatomegaly, and generalized edema. There were no dysmorphic features or evidence of chronic liver disease. Initial laboratory investigations revealed profound anemia with hemoglobin of 2.4 g/dL. Peripheral blood and bone marrow smear demonstrated macrocytosis. Serum vitamin B12 levels were markedly reduced, while folate levels were within normal limits. Urinalysis revealed persistent nephrotic-range proteinuria without hematuria. Renal function tests were normal. There was no history suggestive of nutritional deprivation or chronic gastrointestinal disease.

Given the combination of severe vitamin B12 deficiency and persistent proteinuria, a diagnosis of Imerslund–Gräsbeck syndrome was considered. The child received packed red cell transfusion followed by intramuscular hydroxocobalamin therapy. Clinical improvement was observed with increased activity and rising hemoglobin levels. Proteinuria was settled gradually.

Conclusion: This case highlights the importance of considering Imerslund–Gräsbeck syndrome in infants presenting with severe megaloblastic anemia and unexplained proteinuria. Early recognition and lifelong vitamin B12 replacement are crucial to prevent neurological sequelae and ensure normal growth and development.





ABSTRACT ID: PP 231

Title

Acute myocarditis following Influenza B infection

Authors

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ABSTRACT

Introduction: Influenza viral infections are typically self-limiting; however, they have been recognized as an important cause of viral myocarditis. Among the influenza subtypes, Influenza A has been most frequently associated with myocarditis in reported medical literature. In contrast, myocarditis secondary to Influenza B infection is rare, with even fewer cases documented in the pediatric population.

Case presentation: We report an eight-year-old girl who presented with features of cardiogenic shock including hypotension, tachycardia, and low urine output, with a prior history of febrile lower respiratory symptoms for three days and a household contact of similar illness.

2D echocardiography revealed moderate LVH with LV systolic dysfunction (EF-54%) and a thin rim of pericardial effusion. Troponin I elevated (1185 ng/mL) with ECG showing nonspecific ST segment changes consistent with myocarditis. Inflammatory markers elevated along with deranged liver functions, suggesting a viral etiology. Respiratory viral panel demonstrated positive Influenza B virus PCR from a throat swab, while testing for CMV, EBV, parvovirus, SARS-CoV-2, and Mycoplasma pneumoniae returned negative results.

The child received supportive cardiac care including meticulous fluid management, inotropic support, and antiviral therapy with oseltamivir in the intensive care unit. She gradually improved with anti-inflammatory therapy using IV methylprednisolone and anti-heart-failure regimen, continued for six weeks.

Conclusion: Influenza B fulminant myocarditis is a rare but life-threatening clinical condition in children. It may progress rapidly to heart failure, carries a high risk of poor prognosis, and requires intensive treatment. This case highlights the importance of seasonal influenza vaccination in children to reduce both typical and atypical complications.





ABSTRACT ID: PP 232

Title	Spontaneous Intracerebral Hemorrhage with neurogenic pulmonary oedema in a child
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ABSTRACT

Background: Neurogenic pulmonary edema (NPE) is a rare but life-threatening complication following acute neurological insults, including intracerebral hemorrhage (ICH). It should be suspected in patients who develop acute hypoxia, pink frothy sputum, bilateral crepitations, and difficulty in ventilating despite endotracheal intubation, especially in the absence of preexisting cardiac disease.

Case Summary: A previously healthy 9-year-old boy presented with reduced consciousness and was diagnosed to have spontaneous ICH with intraventricular extension. Shortly after admission, he developed respiratory distress, hypoxia unresponsive to oxygen therapy and pink frothy sputum. Chest auscultation revealed bilateral crepitations and chest X-ray confirmed pulmonary edema. Despite intubation, ventilation was found to be difficult. Neurogenic pulmonary edema was suspected and managed with intravenous furosemide, mechanical ventilation, and inotropic support. Following EVD insertion and supportive care, the patient showed significant neurological and respiratory improvement.

Conclusion: This case highlights the need of suspecting possibility of NPE in neurologically compromised patients who present with sudden hypoxia, frothy sputum, and ventilatory difficulty following intubation. Early intervention with supportive intensive care can significantly improve outcomes. Clinicians must maintain a high index of suspicion for NPE in similar contexts, as delays in diagnosis can lead to poor outcome.





ABSTRACT ID: PP 233

Title

Challenges and Triumphs in Paediatric Major Trauma in Rural District Hospital : Case Report of Trans-Abdominal Injury with Evisceration Post Motor Vehicle Accident

Authors

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ABSTRACT

Paediatric Major Trauma is unpredictable, unique and challenging resuscitation. An unidentified 8-month-old girl was brought in after a car-trailer head-to-head collision with an unknown mechanism of injury had massive open abdominal wound with bowel evisceration, decompensated hypovolaemic shock, head injury, bilateral hip bruises complicated with coagulopathy and transaminitis. Her parents died at the scene. A multidisciplinary team was activated. She was semi-conscious with respiratory distress requiring manual in-line stabilization and direct intubation. Her initial vitals were GCS 8/15, BP 60/15(40)mmHg, HR 190bpm, RR 60bpm and SpO2 100% pre and post intubation. Within 4 hours, the eviscerated bowels were protected, covered by sterile plastic with sterile tape at border to secure haemostasis in catastrophic external haemorrhage. She received early inotropic support to preserve cerebral perfusion, infusion morphine and midazolam, antibiotics coverage and massive blood transfusions (packed cell, fresh frozen plasma, cryoprecipitate) including haemostatic agents (tranexamic acid, vitamin K). Extensive normal saline and sterofundin boluses were administered to expedite resolution of acidosis and shock. She was successfully resuscitated, referred and safely transferred to tertiary centre for intensive, post-trauma care and definitive surgery. Case highlights the challenges of managing paediatric major trauma in a rural hospital setting with limited resources. To improve emergency care, it emphasizes on preparedness emergency team with early activation of paediatric trauma and massive transfusion protocols, effective team approach and communication skills with telemedicine. It is made benchmark in guiding local policy-making to optimizing workforce teams, to reduce morbidity and mortality in paediatric trauma and improve rural emergency services.





ABSTRACT ID: PP 234

Title	Acute Obstructive Hydrocephalus Due to an Intraventricular Colloid Cyst : A Reversible Cause of Rapid Neurological Deterioration in a Child
Authors	Shavindi Jayaweera ¹ , Chaminda Liyanage ¹ , Kolitha Wijewardhana ² , Raveen Jayathilake ² , Sandunika Udugampola ² , Madusha Liyanage ¹ , Shanil Kuruppu ¹ , Anjalee Fernando ¹ , Kandasamy Sunsajula ² , Nishantha Liyadipita ²
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ABSTRACT

Introduction: Colloid cysts of the third ventricle are rare benign intracranial lesions that are distinctly uncommon in the pediatric population. When located at the foramen of Monro, they can obstruct cerebrospinal fluid (CSF) flow and cause rapidly progressive obstructive hydrocephalus, a life-threatening neurosurgical emergency. Early diagnosis is essential, as this represents a potentially reversible cause of raised intracranial pressure with excellent neurological outcomes following timely intervention.

Case Presentation: An 11-year-old previously healthy girl presented with recurrent vomiting for 12 hours, associated with mild headache and a sensation of faintness. Within 3–4 hours, she developed a rapidly progressive decline in consciousness. On admission, her Glasgow Coma Scale score was 8/15. Endotracheal intubation was performed to secure the airway. Initially, her pupils were equal and sluggishly reactive, but subsequently became unequal. She had hyperreflexia and developed systemic hypertension above the 95th percentile for age, height, and sex, together with bradycardia suggestive of Cushing's response. She was transferred to a tertiary care hospital, where urgent neuroimaging revealed a cystic lesion at the foramen of Monro causing acute obstructive hydrocephalus with cerebral edema. An urgent external ventricular drain was inserted for CSF diversion and intracranial pressure control, followed by definitive surgical excision of the cyst. Histopathology confirmed a colloid cyst. Her postoperative recovery was uneventful, and she was discharged without any neurological deficit.

Conclusion: Colloid cysts should be considered as a rare but reversible cause of acute obstructive hydrocephalus in children. Early identification, prompt neuro imaging, and timely neurosurgical interventions are lifesaving.





ABSTRACT ID: PP 235

Title	A Rare Case of Fatal Viral Myocarditis in a Previously Healthy Child Secondary to Influenza B Infection
Authors	S.G.A.D.Tharanga ¹ , L R E C K Athapaththu ¹ , S B N T L Wijeratna ¹ , M Farhan ¹
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ABSTRACT

Introduction: Viral myocarditis occurs due to inflammation of the myocardium. It is most commonly caused by viral infections. Influenza viruses known to cause myocarditis.

Case Presentation: An 8 years old previously healthy girl, presented with one-day history of fever, two episodes of loose stools, and one episode of unresponsiveness. On arrival, she was hemodynamically stable. Then she developed sudden cardiorespiratory arrest. Following resuscitation, she became hypotensive, tachycardiac and had poor peripheral circulation. She was commenced on intravenous fluids, Meropenem, Acyclovir and Noradrenaline infusion. She was admitted to the Medical Intensive Care Unit (MICU). Pediatric cardiology opinion was obtained. Her serum troponin I was elevated. ECG demonstrated ischemic changes (including low-voltage QRS complexes and ST-segment abnormalities in leads I, II, III, V1, and V2) with features of myocarditis and pericardial effusion. A nasopharyngeal swab detected Influenza B specific RNA. During MICU stay, child developed another sudden cardiorespiratory arrest and not revived. The final diagnosis was viral myocarditis secondary to Influenza B infection.

Discussion: Viral myocarditis should be considered in any child presenting with unexplained cardiovascular compromise. Early diagnosis, intensive monitoring, and aggressive supportive care are crucial.





ABSTRACT ID: PP 236

Title	When Skin Speaks Before the Brain: Early X-Linked Adrenoleukodystrophy in a Child
Authors	Polgaswaththa Balaralalage Upuli Swarnamali Premarathne ¹ , De Silva D ¹ , Munasinghe T ¹ , Madarasinghe M.D ¹
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ABSTRACT

Introduction: X-linked adrenoleukodystrophy, a genetically determined rare peroxisomal disorder, results from pathogenic mutations in the ABCD1 gene. This leads to the accumulation of very-long-chain fatty acids in the brain, spinal cord, and adrenal glands primarily. Major clinical manifestations arise from progressive cerebral demyelination and adrenalin insufficiency. Bone marrow transplantation and gene therapy performed before neurological deterioration have improved survival and overall prognosis.

Case presentation: We report an 8-year and 10-month-old boy who presented to the paediatric endocrinology clinic at National Hospital Galle with progressive isolated generalised hyperpigmentation for three years. He was the firstborn of non-consanguineous parents with one younger sibling. His condition later progressed with rapid behavioural and neurocognitive impairment. There was a strong family history among male relatives with diagnostic uncertainty.

Biochemical evaluation was compatible with primary adrenal insufficiency, demonstrated by ACTH levels >2000 with low serum cortisol and a low aldosterone/renin ratio. Normal serum electrolyte concentrations, vitamin B12, gonadal hormones, and 17-hydroxyprogesterone levels helped to rule out other possible causes and raised suspicion of X-ALD. Neuroimaging of the brain showed early white matter and basal ganglia involvement. The diagnosis was confirmed by genetic analysis.

His management was optimized through a multidisciplinary approach.

Conclusion: This case emphasizes the multigenerational burden of unrecognized X-ALD with increased morbidity and mortality. Timely diagnosis and follow-up with serial neuroimaging before significant neurological decline permits successful haematopoietic stem cell transplantation and aid to minimize the devastating disease status. Long-term management of X-ALD includes carrier detection combined with reproductive and genetic counselling.





ABSTRACT ID: PP 237

Title	Suprasellar Germinoma With Unusual Biochemical Presentation
Authors	B.K.G.S.S Dharmasiri ¹ , Udari Ruwanpathirana ¹ , Pavithra Madhushani ¹ , Hiruni Udara ¹ , Thilina Munasinghe ² , Dimarsha De Silva ¹ , Hasanka Peris ¹ , Mahendra Somathilaka ³
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ABSTRACT

Intracranial germ cell tumours arise mainly in suprasellar regions and most common in Asian population. We report a case of suprasellar germinoma with unusual biochemical presentation.

An 11-year-old girl presented with a two-month history of progressive headache and visual impairment, leading her to bump into objects. Her past medical history was unremarkable, and her height was below the 3rd centile. She was prepubertal with Tanner stage I breast and pubic hair development. Systemic examination revealed no abnormalities.

Visual field assessment showed bilateral inferior and temporal defects. MRI demonstrated a large suprasellar lesion extending into the pituitary fossa, suggestive of a pituitary macroadenoma (3.6 × 3.5 × 3.2 cm), with invasion of the left cavernous sinus and compression of the optic chiasm.

Renal and liver function tests and full blood counts were normal. Endocrine assessment revealed a low early-morning cortisol level on two occasions, prompting hydrocortisone replacement. Thyroid function tests showed low free T4 with a normal thyroid-stimulating hormone level, and thyroxine was initiated 48 hours after corticosteroid replacement. Gonadotrophins were in the prepubertal range. Prolactin was markedly elevated, while alpha-fetoprotein was normal. HCG was significantly raised, supporting the diagnosis of a germ cell tumour compressing the pituitary stalk and explaining the hyperprolactinaemia. The tumour showed an excellent response to chemotherapy.

Hormonal profiling is crucial in paediatric suprasellar tumours to inform diagnosis, management, and prognosis. While biopsy remains the standard for confirmation. Elevated tumour markers in secreting germinomas and NGGCT can support a non-invasive diagnosis.





ABSTRACT ID: PP 238

Title	A Case Report of Autoimmune Hypothyroidism Complicated by Massive Pericardial Effusion, Dyslipidemia, and Anemia
Authors	Waisundara Mudiyanse Upeksha Indeewari Waisundara ¹ , Udaya de Silva ¹ , Chamidri Naotunna ¹ , Aquiff Mohideen ¹ , Yasothini Jeyanathan ¹
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ABSTRACT

Introduction: Hypothyroidism is a multisystem disorder with diverse clinical manifestations. Pericardial effusion is a rare but potentially life-threatening complication of severe hypothyroidism. Early diagnosis and prompt treatment are crucial to prevent morbidity.

Case Presentation: A 14-year-old girl, born to non-consanguineous parents and previously well, presented with lethargy, weight gain, exertional dyspnea, and declining school performance for one year. Examination revealed short stature (height <3rd centile), puffy face, pallor, pretibial myxedema, bradycardia (60 beats/min), and a prominent anterior neck swelling. Respiratory and abdominal examinations were unremarkable. Neurological assessment showed delayed relaxation of deep tendon reflexes.

Investigations demonstrated markedly elevated thyroid-stimulating hormone (>100 mIU/L) with very low free T4 and positive anti-thyroid peroxidase antibodies. Neck ultrasonography was consistent with chronic thyroiditis. She had normocytic normochromic anemia, severe hypercholesterolemia (LDL 570 mg/dL), and elevated creatine phosphokinase (1270 U/L). Chest radiography suggested pericardial effusion, confirmed by echocardiography showing a massive effusion measuring 21 mm. Bone age corresponded to 10 years.

She was commenced on oral thyroxine therapy with close biochemical and echocardiographic monitoring. Follow-up showed marked clinical improvement and complete resolution of the pericardial effusion without invasive intervention.

Conclusion: Severe untreated autoimmune hypothyroidism may present with significant multisystem complications. Timely recognition and thyroid hormone replacement therapy can result in full recovery and avoid surgical management.





ABSTRACT ID: PP 239

Title	17 β -Hydroxysteroid dehydrogenase III deficiency- Challenges in management in a low middle income country.
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ABSTRACT

Introduction: 46, XY disorder of sex development (DSD) due to 17_HSD3 gene mutations are rare. This mutation affects male external genitalia development due to inadequate production of testosterone leading to different phenotypic presentations. Most of them are born with female appearing external genitalia.

Case presentation: 10-month-old baby registered as a female born to non-consanguineous healthy parents was brought with concerns regarding external genitalia from 1 month of age. Baby had a 2 cm phallus, palpable testes in the labio-scrotal folds with a perineal urethra and a vaginal orifice. Baby did not have any other health concerns and was thriving developmentally normal child. Ultrasound scan revealed undescended testes with normal echo texture without mullerian structures.

Karyotype – 46,XY,t(7;16)(q31;q24)

Genetic test which confirmed compound heterozygous pathogenic variant in HSD17_3 gene. Examination under anaesthesia showed separately opening external urethral meatus and blindly ending 3cm vagina without a uterine cervix.

Conclusion: Management of this patient, registered as a female led to many challenges such as gender reassignment, changing the birth certificate and complicated surgical interventions. The family was provided with psychological support. Parents made the decision of gender reassignment with courage however the changing the birth certificate remains complicated. Appropriate neonatal examination would have prevented this complication. The child is awaiting hypospadias repair. Not all parents are able to spend on genetic tests which help to understand the aetiology 46,XY DSD. There may have been many such patients undiagnosed and this is the first genetically confirmed patient from Sri Lanka.





ABSTRACT ID: PP 240

Title	Genotype–Phenotype Discordance in Congenital Adrenal Hyperplasia: Adrenal Insufficiency Without Virilization in a CYP21A2 mutation.
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ABSTRACT

Introduction: Congenital Adrenal Hyperplasia (CAH) is a rare form of primary adrenal insufficiency caused by autosomal recessive inheritance primarily of 21 hydroxylase deficiency. Severity depends on the degree of residual enzyme activity. Patients present with classical form during early neonatal period with salt losing/virilization. Non-classical form presents later with virilization. We present a rare case of CAH without virilization.

Case Presentation: 4-Years-old girl presented with fever, cough, difficulty in breathing for oneday with Addisonian crisis. She was pigmented without virilization. Parents were consanguineous and three of her elder siblings had died during the infancy or early childhood. Cause of death was presumed sepsis. She had failure to thrive with marginal developmental delay.

Investigations revealed high ACTH, low cortisol and high renin level. Karyotype 46,XX. Pretreatment and post treatment testosterone and 17-hydroxyprogesterone was low. Allele specific PCR followed by next generation sequencing revealed heterozygous positive for P30L, I2G, 8 Bp deletion, I172N, E6 cluster, V281L, Q318X and R365W hotspot mutations in the CYP21A2. Parental blood was not available to confirm compound heterozygosity.

Conclusion: Despite the presence of pathogenic CYP21A2 variants consistent with severe 21- hydroxylase deficiency, the patient demonstrated persistently low 17-hydroxyprogesterone and testosterone in the setting of markedly elevated ACTH. This biochemical profile suggests near-complete adrenal steroidogenic failure rather than a classical precursor accumulation pattern. Similar presentations have been described in rare cases of severe CYP21A2 disruption, where extensive gene deletions or complex pseudogene conversions result in functional adrenal insufficiency with overlapping features of congenital adrenal hyperplasia and primary adrenal failure.





ABSTRACT ID: PP 241

Title	Progressive Familial Intrahepatic Cholestasis Type 10 (PFIC10): A Rare Case Report and Review of the Literature.
Authors	Wilarachchige Dona Thavishi Harshika Kumari Gunatilake ¹ , SWKMB Bulankulame ¹ , PKTS Mihirani ¹ , A Senanayake ¹ , P Rathnayake ¹ , LS Senarath ¹ , L Gamage ¹ , T Priyawansha ¹ , PMLM Hewa ¹ , IK Wickramaratne ¹ , RKCK Rathnayake ¹
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ABSTRACT

Introduction: Progressive Familial Intrahepatic Cholestasis (PFIC) comprises a rare group of autosomal recessive disorders characterized by defective bile secretion, leading to progressive cholestasis, liver injury, and eventually cirrhosis. PFIC Type 10 is a recently identified subtype caused by pathogenic variants in the MYO5B gene, which disrupts the integrity of tight junctions in the biliary canalicular membrane. Due to its rarity, clinical recognition remains a significant challenge, particularly in South Asia.

Case Presentation: We report a case of an 11-month-old female infant, born to nonconsanguineous parents, presenting with a three-month history of progressive icterus, acholic stools, and intractable pruritus. Physical examination revealed significant growth failure and isolated hepatomegaly. Laboratory investigations demonstrated conjugated hyperbilirubinemia, elevated transaminases, and prolonged PT/INR, but characteristically normal gamma-glutamyl transferase (GGT) levels. Ultrasound and CECT imaging showed hepatomegaly and a gallbladder neck calculus without ductal dilatation. Liver biopsy revealed features of evolving cirrhosis. Given the "normal-GGT cholestasis" phenotype, whole-exome sequencing was performed, identifying a homozygous pathogenic variant in the MYO5B gene (c.1532A>T), confirming PFIC10. Management included ursodeoxycholic acid, cholestyramine, antihistamines, and fat-soluble vitamin supplementation alongside specialized nutritional support. Due to the progressive nature of the disease the patient remains under multidisciplinary surveillance for potential biliary diversion surgery or liver transplantation.

Conclusion: PFIC10 is a rare but critical diagnosis to consider in pediatric patients with normal GGT cholestasis. It highlights the important role of genetic testing in achieving an accurate diagnosis as early identification is vital for managing complications, providing cascade screening, counseling, and planning long-term surgical interventions.





ABSTRACT ID: PP 242

Title	Iron Refractory Iron Deficiency Anemia (IRIDA) in a Two-Year-Old Girl: A Rare Cause of Treatment-Resistant Microcytic Anemia
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ABSTRACT

Introduction: Iron deficiency anemia (IDA) is highly prevalent among Sri Lankan children, particularly in the 6–12 month and 1–2 year age groups, and typically responds well to oral iron therapy. Iron-refractory iron deficiency anemia (IRIDA) is a rare autosomal recessive disorder caused by mutations in the Tmprss6 gene, resulting in inappropriately elevated hepcidin levels and impaired intestinal iron absorption.

Case presentation: A two-year-old girl presented with lethargy and easy fatigability. There was no history suggestive of chronic illness, malabsorption, or blood loss. Examination revealed marked pallor with normal growth parameters and no hepatosplenomegaly. Investigations demonstrated severe microcytic hypochromic anemia (hemoglobin 2.2 g/dL) with low serum iron, low transferrin saturation, and low serum ferritin. Peripheral blood smear findings were consistent with severe iron deficiency anemia. Stool occult blood testing and inflammatory markers were normal. Alpha-thalassemia gene analysis and Meckel's scan were negative. She received blood transfusion initially followed by adequate oral iron therapy, but showed no significant hematologic improvement. However, a marked rise in hemoglobin was observed after initiation of intravenous iron. She remains clinically well with normalized hemoglobin levels and normal growth while maintained on regular intravenous iron therapy.

Conclusions: IRIDA should be considered in children with persistent microcytic anemia unresponsive to appropriate oral iron therapy. Early recognition enables timely institution of intravenous iron treatment and facilitates genetic counseling.





ABSTRACT ID: PP 243

Title

A six-year-old boy presented with recurrent haemolytic episodes triggered by viral illnesses due to G6PD deficiency

Authors

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ABSTRACT

Introduction: Glucose-6-phosphate dehydrogenase (G6PD) deficiency is the most common red cell enzymopathy worldwide leading to intravascular haemolysis in children. The enzyme, located in the hexose monophosphate pathway, generates NADPH to protect red blood cells from oxidative damage. The condition is X-linked, predominantly affecting males, and predisposes to haemolytic anaemia upon exposure to oxidative stress. We reporting a case of G6PD deficiency child who presented to us with haematuria following two successive viral illness.

Case Presentation: Six year old boy presented with haematuria urine for 1 day duration while having fever and respiratory symptoms for 4 days duration. He was on routine respiratory medications and no prior history of herbal medication use. He had bronchial asthma and exaggerated neonatal jaundice requiring triple phototherapy. Examination revealed pallor, jaundice without hepatosplenomegaly. Investigations showed anaemia (Hb 7.2 g/dL) and other cell lines were normal. Peripheral smear showed bite cells. The coombs test was negative. Biochemistry revealed elevated indirect bilirubin, Lactate dehydrogenase and reticulocyte count with positive urine haemoglobin. He required a blood transfusion followed by folic acid therapy. His Hb level gradually improved to 11.5 g/dl. Two weeks later he presented with another febrile illness with haematuria where his Hb drop up to 8 g/dl, picked up spontaneously. Positive Brewer's test suggested G6PD deficiency.

Discussion & Conclusion: This haemolytic episodes were most likely triggered by infections. This case highlight the importance of considering G6PD deficiency in acute haemolytic anaemia associated with febrile illnesses which is uncommon in the available literature.





ABSTRACT ID: PP 244

Title	A Rare Cause of Congenital Pancytopenia: CDC42 mutation with Secondary HLH
Authors	Hiniduma Liyanage Darshika Gunawardana ¹ , Surin Jayawardene ¹ , Wasana Mihirani ¹ , Nadeeka Peiris ¹ , Hansini Kumasaruru ¹ , Upamali Jayalath ²
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ABSTRACT

Introduction: Severe congenital pancytopenia is a rare and life-threatening bone marrow failure syndrome presenting early in life with recurrent infections. Mutations in the CDC42 gene are increasingly recognized as a cause of immune dysregulation, hyperinflammation. However, therapeutic options remain poorly defined.

Case presentation: Index patient is the first child born to non consanguineous parents, delivered at term by emergency lower segment caesarean section due to fetal distress. From day two of life, developed persistent severe pancytopenia, accompanied by fever and markedly elevated inflammatory markers. Managed as severe neonatal sepsis and transferred to lady ridge way hospital for further evaluation. Bone marrow examination revealed marked hypocellularity. Genetic testing identified a heterozygous pathogenic exon 6 mutation in CDC42. Later developed hemophagocytic lymphohistiocytosis. Multidisciplinary discussions considered hematopoietic stem cell transplantation; however, no feasible transplant option was available. Despite intensive supportive care, the child succumbed to overwhelming sepsis.

Conclusion: Case highlights the aggressive clinical course of CDC42 related congenital pancytopenia complicated by secondary HLH and the diagnostic and therapeutic challenges associated.





ABSTRACT ID: PP 245

Title

Masked β -Thalassemia Carrier Status Due to Coinherited HBD Variant Identified Through Whole Exome Sequencing: A Paediatric Case Report

Authors

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ABSTRACT

Introduction: α -thalassemia carrier screening in Sri Lanka primarily relies on High-Performance Liquid Chromatography (HPLC), with elevated HbA₂ levels considered the diagnostic hallmark. However, variants affecting α -globin synthesis can reduce HbA₂ levels and mask α -thalassemia carrier status. With increasing use of genomic testing, such hidden interactions are being recognized and have important implications for paediatric and population-level screening.

Case Presentation: We report a 6-year-old female who underwent posthumous whole exome sequencing (WES) following sudden death due to suspected familial cardiomyopathy, with a history of sudden death in a younger sibling. WES identified a homozygous likely pathogenic splice-site variant in NRAP, consistent with autosomal recessive dilated cardiomyopathy, explaining the primary clinical phenotype. Incidental carrier findings revealed a heterozygous pathogenic HBB splice variant (c.92+5G>C), consistent with α -thalassemia trait. Importantly, the proband also carried a heterozygous HBD missense variant (c.82G>T; Hb A2-Yialousa), known to reduce α -globin production. Coinheritance of these variants is associated with normal or low HbA₂ levels, potentially resulting in false-negative α -thalassemia screening on routine HPLC testing.

Conclusions: This case highlights an important limitation of HbA₂-based α -thalassemia screening, where coinherited HBD variants can mask carrier status. Molecular testing should be considered in individuals with discordant laboratory findings or relevant family history. Increased awareness of such genetic interactions is essential to improve the accuracy of thalassemia screening programs in high-prevalence settings.





ABSTRACT ID: PP 246

Title	Indirect Hyperbilirubinemia in A Neonate Born to a Bombay O Blood Grouped Mother: A Case Report
Authors	Abeykoon Jalath Rathnayake Osman Smith ¹ , Wickramasooriya Arachchige Chamodi Madushani Shani ¹ , Nalika Manike ¹ , Chandana Kekulawala ¹ , D Kuruppu ¹
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ABSTRACT

Introduction: The Bombay blood phenotype (Oh) is an exceptionally rare variant where individuals lack the H antigen and produce anti-H, anti-A, and anti-B antibodies. When mothers with this phenotype deliver infants with conventional blood types, maternal antibodies can cross the placenta, potentially triggering severe hemolytic disease.

Case Presentation: A 29-year-old woman with Bombay O phenotype delivered a 2.785 kg male infant at 35+6 weeks gestation as her third child. The pregnancy was uncomplicated. Within 24 hours of birth, the neonate developed rapidly progressive jaundice with indirect hyperbilirubinemia exceeding exchange transfusion thresholds, without hepatosplenomegaly. Laboratory evaluation revealed blood type O Rh D positive with negative direct antiglobulin test. Hematologic studies showed hemoglobin 11.6 g/dL, reticulocytosis (15%), and spherocytosis on peripheral smear. Although total bilirubin reached exchange transfusion levels on day one, Bombay O blood was initially unavailable. The infant received triple phototherapy and IV immunoglobulin. Subsequently, Bombay O blood transfusion corrected the anemia. Bilirubin levels stabilized and gradually declined, permitting discharge on day seven.

Conclusion: This case illustrates the complex management of neonatal hyperbilirubinemia associated with the rare Bombay phenotype, where multiple maternal antibodies create severe hemolysis beyond typical ABO incompatibility. Clinicians should consider atypical blood group incompatibilities when jaundice progresses rapidly within 24 hours of life. Early recognition, intensive phototherapy, IV immunoglobulin, and timely exchange transfusion are crucial for preventing kernicterus. Prenatal identification of rare blood phenotypes should trigger appropriate planning to optimize neonatal outcomes.





ABSTRACT ID: PP 247

Title	A child with Imerslund-Gräsbeck syndrome presenting with chronic constipation: a case report of a second affected child of a Sri Lankan family
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ABSTRACT

Background: Imerslund-Gräsbeck syndrome is an rare autosomal recessive disorder of vitamin B₁₂ malabsorption. Here, we report a rare case of a second child in the same family with Imerslund-Gräsbeck syndrome presenting with chronic constipation, an unusual presentation of the disease.

Case presentation: A 2 years and 4 months old girl, the second-born child of nonconsanguineous parents, presented with chronic constipation for 6 months. She had shown a suboptimal response to regular laxatives. She had a significant family history, with her elder brother being diagnosed with Imerslund-Gräsbeck syndrome at 4 years of age when he presented with lower limb weakness and anaemia.

The physical examination was normal except for pallor. Her haemoglobin was 7.8g/dL, and the blood picture showed evidence of vitamin B12 deficiency. Her serum vitamin B12 level (87pg/mL) was low, and plasma homocysteine level was high (60µmol/L), confirming vitamin B12 deficiency. Urine albumin: creatinine ratio was high (15.7mg/mmol).

Based on the positive family history and laboratory evidence of vitamin B12 deficiency and proteinuria, the diagnosis of Imerslund-Gräsbeck syndrome was made. She was commenced on intramuscular hydroxocobalamin and oral folic acid. She showed significant clinical improvement in constipation, haemoglobin increased to 10.9g/dL, and serum vitamin B₁₂ levels normalised (1604 pg/mL) after 2 weeks of treatment.

Conclusions: We report a second child with Imerslund-Gräsbeck syndrome, a rare genetic cause of vitamin B12 deficiency from the same family. This report describes an unusual presentation of the disease as chronic constipation and highlights the importance of family screening of rare genetic disorders.





ABSTRACT ID: PP 248

Title	A Rare Case of Giant Type IVa Choledochal Cyst Presenting with Portal Hypertension
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ABSTRACT

Introduction: Choledochal cysts (CCs) are congenital dilatations of the intrahepatic and/or extrahepatic bile ducts. Type IVa cysts involve both ductal systems and account for 15–35% of cases. The classic triad of abdominal pain, jaundice, and palpable abdominal mass is seen in only a minority of patients.

Case Presentation: A previously healthy 3-year-old girl presented with hematemesis and melena, without prior abdominal pain or jaundice. Examination revealed mild jaundice, pallor, and firm hepatosplenomegaly without ascites. Laboratory tests showed elevated transaminases, conjugated hyperbilirubinemia, and raised ALP and GGT levels, with preserved synthetic liver function. Abdominal ultrasonography demonstrated dilatation of the intrahepatic ducts and common bile duct (CBD), coarse hepatic echotexture, and splenomegaly. Contrast-enhanced computed tomography confirmed fusiform CBD dilatation measuring 10.9 × 6 × 5.6 cm with associated intrahepatic ductal dilatation and irregular liver surface. Upper gastrointestinal endoscopy revealed Grade III esophageal varices.

A diagnosis of Type IVa choledochal cyst complicated by portal hypertension was made. After resuscitation and endoscopic variceal band ligation, complete cyst excision with Roux-en-Y hepaticojejunostomy was performed. The postoperative course was uneventful, with marked clinical and biochemical improvement. Repeat upper GI endoscopy showed improvement of the varices, and banding was performed.

Conclusion: This case underscores the importance of considering Type IVa choledochal cyst in children presenting with portal hypertension, even in the absence of the classic triad of abdominal pain, jaundice, and a palpable abdominal mass. Early diagnosis and timely surgical correction are critical for achieving a favorable prognosis.





ABSTRACT ID: PP 249

Title	Acute liver failure secondary to a Mycoplasma infection
Authors	Kurukulasuriyage Nishan Tharidu Perera ¹ , Doreen Ratnayake ¹ , Infaq Luthufdeen ¹ , Sampath Senevirathne ² , Suresh Meegahawatta ²
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ABSTRACT

Introduction: Mycoplasma infection is a bacterial infection that can affect all the systems in the body, predominantly the respiratory system. It leads to an atypical infection which is also known as the walking pneumonia. However, on occasion the other systems may also be affected.

Case Presentation: A three-and-a-half-year-old previously well child presented with fever for 1 week associated with vomiting and a cough. On admission to a base hospital the child had features suggestive of shock and required 2 fluid boluses and was managed as possible dengue shock syndrome and was transferred to the Teaching Hospital Kurunegala, PICU for further management. Further evaluation revealed no features suggestive of this diagnosis. However, it showed features compatible with acute liver failure grade 2 complicated with hepatic encephalopathy. During the PICU stay the child developed a bronchopneumonia, as well. He required multiple Fresh Frozen Plasma infusions and a liver failure regimen. While investigating for a possible cause the mycoplasma antibody was found to be positive. The child made a speedy recovery following the appropriate interventions.

Discussion: Identification of acute liver injury is crucial as a delay in the diagnosis can lead to a detrimental outcome. One of the essentials in the management is to identify the etiology. Hence, we need to consider mycoplasma infection in any child with acute liver failure secondary to an infection so that we can start the necessary treatment early.





ABSTRACT ID: PP 250

Title	A Rare Presentation of Seronegative Post-Infantile Giant Cell Hepatitis in a Child with Common Variable Immunodeficiency 8
Authors	DMDT Dissanayake ¹ , Thamodha Charuni Weerasinghe ¹ , Maheshika Navarathne ¹ , Prasad Godakanda ¹ , Sarojini Viknarajah Mohan ¹
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ABSTRACT

Introduction: Common variable immunodeficiency (CVID) is a primary immunodeficiency disorder characterized by impaired B-cell differentiation. Type 8, caused by mutations in the LRBA gene, is associated with significant immune dysregulation and autoimmunity. Seronegative post-infantile giant cell hepatitis is a rare hepatic manifestation in this context.

Case Presentation: A previously healthy 7-year-old boy presented with a history of jaundice, vomiting, and epistaxis. He was the T1 of twins born to consanguineous parents. On examination, he had pallor, icterus, and hepatosplenomegaly. Investigations revealed pancytopenia with reticulocytosis and direct hyperbilirubinemia. The direct antiglobulin test was initially positive. Viral screening was negative. Thalassaemia and Wilson disease screening were normal. CT abdomen demonstrated hepatosplenomegaly without evidence of chronic liver disease. no portal hypertension either. Liver histology is consistent with post-infantile giant cell hepatitis. Autoimmune hepatitis antibody panel was negative. Serum immunoglobulin levels were within normal limits. Bone marrow biopsy excluded malignancy. Despite blood, platelets transfusions and intravenous immunoglobulin therapy, the patient deteriorated. Administration of intravenous methylprednisolone followed by oral prednisolone led to marked improvement in cytopenias and liver function tests. A relapse occurred during steroid tapering in association with a viral infection but resolved along with recovery from the infection. Whole exome sequencing identified an autosomal recessive pathogenic LRBA gene variant, confirming CVID type 8.

Conclusion: This case highlights Early recognition of immune dysregulation and timely initiation of immunosuppressive therapy were crucial in achieving remission.





ABSTRACT ID: PP 251

Title

A rare case report: Primary sclerosing cholangitis in a 4 year old boy.

Authors

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ABSTRACT

Introduction: Cirrhosis is a disease causing morbidity and mortality in children. Children affected present with growth failure and complications of liver disease such as abdominal pain, fatigue, hepatosplenomegaly, and jaundice. Primary sclerosing cholangitis (PSC) is a rare cause of cirrhosis in young children, as it usually presents during the second decade of life. There is no medical cure and liver transplant remains the only option. Only a few rare cases were published in the literature with only 1 patient being younger than our patient.

Case report: A 4 year old adequately grown boy, presented with haematemesis with no past history suggestive of chronic liver disease. He was pale and had no peripheral stigmata of chronic liver disease. The liver appeared shrunken on percussion with 3cm splenomegaly. Investigations revealed an Hb of 5g/dl with normal liver function tests except for elevated GGT and ALP. USS abdomen showed evidence of portal hypertension with cirrhotic architecture of the liver. Upper Gastro Intestinal Endoscopy revealed grade 2 esophageal varices. Liver biopsy showed features of primary sclerosing cholangitis with cirrhosis. After the acute management he was started on propranolol and the parents were counselled with the possible need of liver transplant in future.

Discussion: Though children with cirrhosis present with symptoms and signs of chronic liver disease and growth failure, this patient had neither. PSC is rare in early childhood. It is important find the exact cause of cirrhosis in children as the management can be planned and explained to the parents early.





ABSTRACT ID: PP 252

Title	Recognizing Cyclosporine-Induced Papilloedema in Paediatric Steroid-Dependent Nephrotic Syndrome: A Preventable Cause of Visual Morbidity
Authors	K T R Jayasanka ¹ , W D V Thilakarathna ¹ , D N Nelson ¹ , A M Nawfer ¹ , R Ranawaka ¹
Affiliations	¹ Lady Ridgeway Hospital, Sri Lanka

ABSTRACT

Background: Nephrotic syndrome is a common childhood glomerular disorder characterized by nephrotic-range proteinuria, hypoalbuminemia, hyperlipidemia, and edema. While most children are steroid-sensitive, up to 40–60% develop steroid-dependent nephrotic syndrome (SDNS), requiring steroid-sparing agents. Cyclosporine, a calcineurin inhibitor, is widely used to maintain remission; however, it is associated with nephrotoxicity and rare neurotoxic complications. Papilloedema secondary to cyclosporine is uncommon but potentially reversible if identified early.

Case Presentation: We report a 4-year-old girl with SDNS diagnosed at 2 years of age, managed with prolonged corticosteroids and subsequently commenced on cyclosporine for relapse prevention. She remained in remission for four years with therapeutic trough levels and normal renal function. She later presented with persistent headache, visual blurring, and intermittent vomiting. Neurological examination was unremarkable except for bilateral optic disc oedema on fundoscopy. Neuroimaging and lumbar puncture demonstrated no intracranial mass lesion or raised intracranial pressure. Renal function and cyclosporine trough level (58.8 ng/mL) were within therapeutic range. Cyclosporine-induced papilloedema was suspected. The drug was discontinued, and acetazolamide initiated. Her symptoms resolved completely within weeks, with full resolution of papilloedema on follow-up. Renal biopsy showed no evidence of chronic cyclosporine nephrotoxicity. She was transitioned to mycophenolate mofetil without recurrence.

Conclusion: Cyclosporine-induced papilloedema is a rare but reversible complication that may occur despite therapeutic drug levels and normal renal function. Clinicians should maintain vigilance in children with SDNS presenting with headaches or visual symptoms. Early recognition and prompt withdrawal of cyclosporine are crucial to prevent permanent visual impairment.





ABSTRACT ID: PP 253

Title	Unusual Presentation of Post-infectious Glomerulonephritis with Normal Complements Levels & Positive Mycoplasma Serology: A Case Report
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Affiliations	¹ DGH Horana, Sri Lanka

ABSTRACT

Introduction: Acute glomerulonephritis (AGN) in children is typically characterized by hematuria, oedema and hypertension. In Sri Lanka, most common cause for AGN in children is post streptococcal, typically characterized by elevated antistreptolysin-O titre (ASOT) and low complements (C3) level. However, atypical presentations with normal complement levels and alternative infectious triggers may pose diagnostic challenges.

Case Presentation: We report an 11-year-old previously healthy girl who presented with a three day history of fever and painless macroscopic hematuria. She had no edema, oliguria, or hypertension on admission. Three weeks prior, she experienced an upper respiratory tract infection with sore throat and erythematous rash. No features of connective tissue disorders. Investigations revealed significant hematuria, proteinuria, elevated inflammatory markers (ESR, CRP), elevated ASOT (1200 IU), and transient renal impairment. She was initially managed as post-streptococcal glomerulonephritis (PSGN). However, serum complement levels (C3 and C4) remained normal from onset, which was atypical. Mycoplasma antibody titre was markedly elevated (1:640). During hospitalization, she developed transient hypertension which resolved with supportive care. Ultrasound imaging showed bilaterally edematous kidneys consistent with acute parenchymal changes. She was treated with supportive nephritic management, blood pressure control, intravenous ceftriaxone, and oral clarithromycin. Renal function and inflammatory markers gradually normalized over six weeks without complications.

Conclusion: Atypical nephritic presentation with normal complement levels should prompt evaluation for alternative infectious triggers. Broader etiological consideration, including Mycoplasma infection, is essential to avoid diagnostic anchoring in atypical cases of acute glomerulonephritis. Follow up of patients with AGN is important to detect chronicity and complications.





ABSTRACT ID: PP 254

Title	Relapsing C3 Glomerulopathy in Childhood: Diagnostic and Management Challenges
Authors	Ameenudeen Mohamed Nawfar ¹ , Dulani Nelson ¹ , Viraj Thilakarathna ¹ , Renu Kalansooriya ¹ , Rajith Jayasanka ¹ , Fathima Zainab Razeen ¹ , Sayanthan Shanmugam ¹ , Sakuntha Kumudesh ¹ , Lakwijaya Suranjan ¹ , Ayathma Kularathna ¹ , Randula Ranawaka ¹
Affiliations	¹ Lady Ridgeway Hospital, Sri Lanka

ABSTRACT

Background: C3 glomerulonephropathy (C3G) is a rare complement-mediated glomerular disorder resulting from dysregulation of the alternative complement pathway, characterised by dominant C3 deposition on immunofluorescence microscopy. In paediatric populations, its heterogeneous clinical phenotype frequently overlaps with post-infectious glomerulonephritis (PIGN).

Case Presentation: We report an 11-year-old girl who initially presented at six years of age with facial oedema, ascites, macroscopic haematuria, and hypertension following a respiratory tract infection. Laboratory evaluation demonstrated markedly reduced serum C3 with normal C4 levels, elevated anti-streptolysin O titres, and preserved renal function. She was managed as PIGN with supportive therapy.

After defaulting follow-up for four years, she re-presented at 10 years of age with recurrent gross haematuria, oedema, nephrotic-range proteinuria, hypertension, and renal dysfunction. Renal biopsy revealed strong C3-dominant staining in the absence of significant immunoglobulin deposition, confirming the diagnosis of C3 glomerulonephropathy. Immunosuppressive therapy with corticosteroids and mycophenolate mofetil resulted in renal recovery to her baseline function.

During follow-up, she experienced multiple relapses with progressive deterioration of renal function. A subsequent renal biopsy demonstrated crescentic glomerulonephritis, necessitating intravenous cyclophosphamide therapy. Her clinical course was complicated by hypertensive encephalopathy, pulmonary oedema, and severe sepsis requiring prolonged intensive care. Although partial renal recovery was achieved, persistent proteinuria and a reduced estimated glomerular filtration rate were consistent with chronic kidney disease stage 2.

Conclusion: This case highlights the relapsing and progressive nature of paediatric C3G, the diagnostic challenges associated with PIGN-like initial presentations, and the critical importance of early diagnosis to mitigate progression to chronic kidney disease.





ABSTRACT ID: PP 255

Title	EAST (Epilepsy, Ataxia, Sensorineural hearing deficiency, Tubulopathy) Syndrome: A Rare Case Report
Authors	Shenali Madushika Gamalathge ¹ , Shanika Rankoth ¹ , Sanjeewana Wickramasinghe ¹ , Indika Kumara ¹ , Shenal Thalgahagoda ²
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ABSTRACT

Introduction: EAST syndrome is a rare autosomal recessive disorder characterized by epilepsy, ataxia, sensorineural deafness and renal tubulopathy. It results from mutations in the KCNJ10 gene encoding a potassium channel expressed in the brain, inner ear and distal renal tubules. The disorder typically presents in early childhood with neurological manifestations and persistent electrolyte abnormalities resembling Gitelman-like tubulopathy. Due to its rarity and variable presentation, recognition is often delayed.

Case Presentation: A 15-year-old girl with global developmental delay, epilepsy, cerebellar ataxia and sensorineural hearing loss presented with a respiratory tract infection, vomiting and poor oral intake. Investigations revealed severe hypokalaemia, hypomagnesaemia and hyponatraemia persisting on serial testing. Arterial blood gas analysis demonstrated metabolic alkalosis. Electrocardiography showed changes consistent with severe hypokalaemia. She was managed with fluid resuscitation and intravenous potassium and magnesium replacement under strict monitoring. Further evaluation confirmed renal potassium and magnesium wasting suggestive of Gitelman-like tubulopathy. She required aggressive electrolyte supplementation with spironolactone to reduce renal potassium losses. Considering her longstanding neurological features and newly recognized renal tubulopathy, EAST syndrome was suspected clinically. She was discharged on long-term oral electrolyte supplementation. Follow up showed improvement in sensorium and muscle power. Genetic confirmation is awaited.

Conclusion: EAST syndrome should be suspected in patients with epilepsy, ataxia, sensorineural hearing loss and persistent renal electrolyte wasting. Early recognition and multidisciplinary management are essential to improve outcomes and quality of life.





ABSTRACT ID: PP 256

Title	Successful renal transplantation following hybrid dialysis in a child with severe cardiac dysfunction
Authors	Ameenudeen Mohamed Nawfar ¹ , Abiramie Jeykrishna ¹ , Sanjeewa Wickremasinghe ¹ , Sunethra Irugalbandara ² , Senani Samarasinghe ³ , Bandula Samarasinghe ⁴ , Shenal Thalagahagoda ⁵
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ABSTRACT

Introduction: Hybrid dialysis is defined as the combination of peritoneal and haemodialysis. It is a strategy that can be utilised in patients requiring intense dialysis where a single modality has failed. Cardiac dysfunction is a known complication of advanced renal failure which can make renal transplantation difficult. We report a patient with prolonged severe cardiac dysfunction who underwent a successful renal transplant following hybrid dialysis.

Case presentation: A 5.6-year-old girl with congenital nephrotic syndrome due to NPHS2 mutation was followed up from early infancy. Her renal functions gradually deteriorated age of 3.8 years. She was commenced on haemodialysis following rapid progression to Stage 5 chronic kidney disease following an episode of severe pneumonia requiring ventilator support age of 4.5 years. Subsequently she had repeated episodes of cardiac failure requiring emergency haemodialysis. Repeated 2D-Echocardiogrammes revealed severe left ventricular dysfunction with ejection fraction (EF) ranging from 30-40%. Haemodialysis was intensified to alternate-day dialysis but no improvement in cardiac function resulted. She was therefore commenced on hybrid dialysis with 3 times a week haemodialysis and 5 cycles a day continuous ambulatory peritoneal dialysis. This resulted gradual improvement in cardiac function with EF reaching 50-55%. She underwent a successful live donor kidney transplant from the father at 5.4 years of age and was discharged with a serum creatinine of 42µmol/L. On subsequent review cardiac function had improved further (EF 60-65%).

Conclusions: This case report highlights the importance of considering hybrid dialysis in patients with severe cardiac dysfunction to improve cardiac function prior to renal transplantation.





ABSTRACT ID: PP 257

Title	Two different cases of paediatric atypical Haemolytic uraemia syndrome; Management challenges due to etiological diversity
Authors	Dulani Nimeshika Nelson ¹ , Viraj Thilakarathne ¹ , Rajith Jayasanka ¹ , Mohamed Nawfar ¹ , Sayanthan Shanmugam ¹ , Vijitha Veerasingham ¹ , Ayathma Kularathna ¹ , Randula Ranawaka ¹
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ABSTRACT

Introduction: Atypical haemolytic uraemic syndrome (aHUS) is a rare, life-threatening thrombotic microangiopathy characterized by microangiopathic haemolytic anaemia, thrombocytopenia, and acute kidney injury, commonly resulting from dysregulation of the alternative complement pathway. We report two pediatric patients presented with distinct etiological triggers of aHUS: anti-factor H antibody-associated disease and Invasive pneumococcal infection associated disease.

Case presentation: The first case involved a 10 year old boy presenting with abdominal pain, vomiting without preceding febrile illness or dysentery. He was pale, afebrile with unremarkable other system examination. Investigations revealed Coombs-negative haemolytic anaemia, (Hb 7.4g/dl, retic count 8.8%) thrombocytopenia, LDH (2566 U/L) and renal impairment (creatinine 184 micromol/L, Urea 28mmol/L), ANA and viral panel were negative. Immunological workup demonstrated ADAMTS 13 activity 100% and markedly elevated anti-factor H antibody titers (7800 AU/ml) confirming immune-mediated complement dysregulation. The patient was managed with plasma exchange, corticosteroids, and supportive therapy for acute renal impairment resulting in gradual hematological and renal recovery.

The second case was a 3 years old girl admitted with severe cavitary pneumonia and septic shock. Blood culture positive for *Streptococcus pneumoniae*. CRP 250mg/L. The clinical course was complicated by haemolytic anaemia (Hb 5g/dl, LDH 560 U/L, retic count 7%, thrombocytopenia and renal impairment (creatinine 158 micromol/L, Urea 26mmol/L) consistent with pneumococcal-associated HUS. Direct Coombs test was positive. Child was managed with intravenous antibiotics, repeated cycles of plasmapheresis to reduce the antibody burden using Albumin (avoiding plasma products like FFP to prevent worsening haemolysis by T antigen exposure) leading to gradual recovery.

Conclusion: These cases highlight the heterogeneity of aHUS and the importance of early recognition of underlying triggers for better outcomes.





ABSTRACT ID: PP 258

Title	Cyanotic Nephropathy in a Child with Uncorrected Tetralogy of Fallot and Down Syndrome
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ABSTRACT

Introduction: Cyanotic nephropathy is a chronic glomerular disorder occurring in patients with longstanding cyanotic congenital heart disease secondary to chronic hypoxemia. Hyper viscosity and glomerular hyperfiltration lead to glomerulomegaly, mesangial expansion, proteinuria, and progressive decline in eGFR.

Case: 7-year-old boy with trisomy 21 with global developmental delay with uncorrected Tetralogy of Fallot (without prior Blalock-Taussig shunt) presented with facial puffiness and dyspnea of 3 days' duration. He had a history of left-sided cerebral abscess requiring burr hole evacuation.

On examination, he had dysmorphic features consistent with trisomy 21, including upslanting palpebral fissures, epicanthic folds, flat nasal bridge, low-set ears, single transverse palmar crease. He had cyanosis, clubbing and ejection systolic murmur in pulmonary area with a soft second heart sound. Blood pressure was normal. Respiratory rate was 48/min with saturation of 60% on air, lungs clear. Abdominal examination revealed ascites and mild hepatomegaly. Neurological examination demonstrated residual right-sided weakness.

Full blood count revealed Hb- 23.7g/dL, HCT-75.5%, plt-67,000 / μ L, creatinine-87 μ mol/L, blood urea 6.2 mmol/L. eGFR-45 ml/min/1.73m². Urine albumin 3+, serum albumin 25 g/L. Urine protein:creatinine ratio-381.93 mg/mmol. Renal sonography revealed bilateral renal parenchymal changes. Echocardiogram- Tetralogy of Fallot, Bilateral SVC, IVC, hepatic vein congested with flow reversal, significant asymmetrical septal hypertrophy. He was managed with albumin infusions, angiotensin-converting enzyme inhibitors, and partial exchange transfusion.

Conclusions: In cyanotic nephropathy, early corrective cardiac intervention reduces renal hemodynamic stress and may prevent progression. In established disease, management is supportive and focuses on control of hyper-viscosity, reduction of proteinuria, and optimisation of cardiac status.





ABSTRACT ID: PP 259

Title	Post Vaccination Nephrotic Syndrome: A Paediatric Case Following MMR Immunization
Authors	Abeykoon Jalath Rathnayake Osman Smith ¹ , Wickramasooriya Arachchige Chamodi Madushani Shani ¹ , Buddhima Yasasvi Samarawickckrama ¹ , Neel Kannangara ¹
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ABSTRACT

Introduction: Nephrotic syndrome is a rare but reported complication following various vaccinations, including the measles-mumps-rubella (MMR) vaccine. The pathophysiology involves immune-mediated glomerular damage, though the exact mechanism remains unclear. Temporal association between vaccination and onset of nephrotic syndrome has been documented in paediatric literature, warranting careful monitoring post immunization.

Case Presentation: A previously healthy 3-year-old girl presented with facial oedema, abdominal distension, and reduced urine output developing six days after receiving the MMR vaccine. Physical examination revealed periorbital oedema, ascites, and bilateral lower limb pitting oedema. Laboratory investigations showed proteinuria (4+ on dipstick), hypoalbuminemia (1.2 g/dL), and hypercholesterolemia (580 mg/dL). Serum creatinine was normal at 0.4 mg/dL. Renal ultrasound showed normal-sized kidneys with increased echogenicity. The patient was diagnosed with Nephrotic syndrome based on clinical presentation and laboratory findings. Treatment was initiated with prednisolone 60 mg/kg/day. The child achieved complete remission after 3 weeks of corticosteroid therapy, with resolution of oedema and normalization of urinary protein levels.

Conclusion: This case illustrates a temporal association between MMR vaccination and nephrotic syndrome onset in a paediatric patient. While causation cannot be definitively established, healthcare providers should maintain awareness of this potential adverse event. The favourable response to corticosteroid therapy suggests possible minimal change disease, consistent with vaccine-associated cases reported in literature. Continued surveillance and reporting of such cases are essential for vaccine safety monitoring.





ABSTRACT ID: PP 260

Title	A Newborn's Bloody Surprise: Unraveling A Neonatal Case of Hemorrhagic Cystitis
Authors	Tito A. Addun Jr., RMT, MD ¹ , Charisse B. Pulmano, MD ¹
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ABSTRACT

Introduction: Hemorrhagic cystitis in the newborn is a very rare occurrence and is primarily caused by a secondary disease. However, there is scarcity of data depicting its actual incidence. Although uncommon, neonatal gross hematuria can be a manifestation of a potentially serious pathology. As such, gross hematuria should be evaluated promptly.

Case Presentation: We report a rare case of term male neonate who presented with gross hematuria seen immediately after birth. Hematuria was confirmed with urine microscopy. Both of his blood and urine culture were negative for microbial growth. His coagulation profile was unremarkable. Anemia and thrombocytopenia, which were probably due to acute blood loss, were observed on full blood count. His renal tract ultrasound showed thickened bladder wall with inflammatory or hemorrhagic debris but no other structural abnormalities. He received intravenous vitamin K, antibiotics, and blood transfusion, and was managed conservatively. His hematuria resolved on the eighth day of life without further episodes until 2-month of life, with no clear cause of the presentation.

Conclusion: In this paper, we discuss a rare case of neonatal hemorrhagic cystitis and its clinical approach. Moreover, this reinforces the importance of distinguishing hemorrhagic cystitis from other more serious conditions that present with gross hematuria. This underscores the necessity of prompt evaluation and appropriate intervention to achieve good clinical outcome.





ABSTRACT ID: PP 261

Title	A rare case of thoracic kidney
Authors	S.G.A.D.Tharanga ¹ , EJP De Silva ¹ , S B N T L Wijeratna ¹ , M Farhan ¹
Affiliations	¹ DGH Ampara, Sri Lanka

ABSTRACT

Introduction: Thoracic kidney is a rare form of renal ectopia caused by abnormal ascent of the kidney, often associated with diaphragmatic defects. It is usually detected incidentally during imaging performed for unrelated clinical indications.

Case Report: A 6-month-old female infant, the only child of parents with hearing and speech impairment, was admitted for evaluation of persistent tachycardia. Clinical examination revealed tachycardia without an audible murmur, signs of heart failure, or other abnormal findings. Electrocardiography and Holter monitoring confirmed sinus tachycardia. 2D echocardiography demonstrated a small atrial septal defect without hemodynamic significance. As part of further evaluation, ultrasonography of the abdomen and kidneys was performed and revealed absence of the right kidney from the renal bed, with a kidney-like structure visualized above the right hemidiaphragm. A chest radiograph demonstrated features suggestive of a posterior diaphragmatic defect with a homogeneous opacity in the right middle lobe zone. CECT of the chest subsequently confirmed an intrathoracic right kidney with herniation of segment VII of the liver through a posterior defect of the right hemidiaphragm, consistent with a diaphragmatic hernia. The left kidney was normally positioned. Anomalous systemic arterial supply to an adjacent segment of the right lower lobe raised the possibility of associated pulmonary sequestration. The child was transferred to Sirimavo Bandaranayake Specialized Children's Hospital for further multidisciplinary management.

Discussion: Thoracic kidney is a rare anomaly that may coexist with diaphragmatic and cardiopulmonary abnormalities. Early recognition facilitates appropriate imaging, parental counseling, and long-term follow-up.





ABSTRACT ID: PP 262

Title	A Rare Case Of Congenital Nephrotic Syndrome
Authors	S.G.A.D.Tharanga ¹ , EJP De Silva ¹ , S B N T L Wijeratna ¹ , M Farhan ¹
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ABSTRACT

Introduction: Congenital nephrotic syndrome (CNS) is a rare renal disorder defined by the onset of nephrotic syndrome within the first three months of life. It often presents with nonspecific clinical features, which may delay diagnosis. Early recognition is essential to initiate appropriate management and prevent complications.

Case Report: A 25-day-old female neonate, the third child of consanguineous parents, presented with generalized body swelling without other significant symptoms. The antenatal and perinatal periods were uncomplicated. There was no family history of renal or liver disease. On examination, the infant had generalized edema with mild pallor and mild hepatomegaly, but no dysmorphic features. Cardiovascular examination revealed no murmurs or signs of heart failure. Initial differential diagnoses included coarctation of the aorta and liver pathology; however, echocardiography excluded coarctation, and features of liver failure subsequently resolved. Laboratory investigations demonstrated impaired renal function with +3 proteinuria, hypoalbuminemia, and hypercholesterolemia. Ultrasonography of the kidneys, ureters, and bladder revealed bilateral renal parenchymal disease. A diagnosis of congenital nephrotic syndrome was considered, and the infant was transferred to Lady Ridgeway Hospital for further management, including renal biopsy and regular intravenous albumin infusions.

Discussion: CNS should be considered in neonates presenting with generalized edema, particularly in those born to consanguineous parents. Early diagnosis, genetic evaluation, and close monitoring are crucial to guide management and improve outcomes.





ABSTRACT ID: PP 263

Title	C3 Glomerulopathy: A Rare Cause of Persistent Hematuria in a Young adolescent
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ABSTRACT

Introduction: C3 glomerulopathy (C3G) is a rare complement-mediated renal disorder with incidence estimated to be around 1-3 cases per million people. C3G results from dysregulation of the alternative complement pathway driven by acquired factors namely autoantibodies that target C3 or C5 convertases. It is characterized by predominant C3 deposition in the glomeruli and commonly presents with features overlapping post-infectious glomerulonephritis, making diagnosis challenging in pediatric practice.

Case Presentation: A 15-year-old female presented with edema for 15 months, cola-colored urine, and persistent proteinuria. She was also noted to have hypertension at presentation. Laboratory investigations revealed persistent hypocomplementemia with low serum C3 and normal C4 levels. Urinalysis confirmed significant proteinuria with microscopic hematuria. Renal biopsy was performed due to prolonged symptoms and persistent complement abnormalities. Microscopy showed segmental sclerosis with podocyte hypertrophy suggestive of membranoproliferative glomerulonephritis. Immunofluorescence demonstrated dominant C3 deposition with minimal immunoglobulin staining, consistent with C3 glomerulopathy. Histopathological findings supported the diagnosis. She was initiated on antihypertensive therapy, renin-angiotensin system blockade (enalapril), and immunomodulatory treatment (steroid, mycophenolate mofetil), with close monitoring of renal function and proteinuria.

Discussion: C3 Glomerulopathy (C3G) should be suspected in adolescents presenting with prolonged hematuria, proteinuria, hypertension, and persistent low C3 levels. Differentiating it from post-infectious glomerulonephritis is crucial, as C3G carries a higher risk of progression to chronic kidney disease.

Conclusion: This case emphasises the importance of early recognition and timely renal biopsy in children with persistent symptoms of hematuria, proteinuria, urinary abnormalities and hypocomplementemia to prevent long-term renal complications.





ABSTRACT ID: PP 264

Title

A Rare Childhood Presentation of Emery-Dreifuss Muscular Dystrophy (EDMD) Type 2

Authors

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ABSTRACT

Introduction: Emery-Dreifuss muscular dystrophy (EDMD) is a rare genetic disorder characterized by slowly progressive muscle weakness, joint contractures, and cardiac dysfunction. Within this spectrum, autosomal dominant EDMD Type 2, caused by mutations in the LMNA gene (encoding lamin A/C). Symptoms normally appear in the second decade of life or later.

Case presentation: A 2-year-old boy, the first-born child of a non-consanguineous couple presented with the features of isolated gross motor delay. The examination of lower limbs revealed pseudohypertrophy of the calves and positive Gowers sign, along with generalized hypotonia and reduced reflexes. There were no joint contractures. The abdominal examination did not reveal hepatomegaly or splenomegaly. Cardiovascular system was clinically normal. Investigations revealed persistently high creatine phosphokinase of 500-800 U/L. Venous blood gas and liver function tests, including transaminases, alkaline phosphatase, gamma-glutamyl transferase were normal. Abdominal ultrasonography, electrocardiography (ECG) and initial echocardiography were normal. A technically limited electromyogram (due to poor cooperation) does not showed any evidences of myopathy or for an anterior horn cell disease. The whole exome sequencing identified a pathogenic heterozygous variant in the LMNA gene (NM_001170707.4): c.745C>T, (p. Arg249Trp) confirming autosomal dominant EDMD type 2. The child is currently managing with regular cardiac monitoring (ECG, echocardiography) and limb physiotherapy.

Conclusions: We report an extremely rare childhood presentation of Emery-Dreifuss muscular dystrophy type 2. This case report highlights the importance of evaluating peripheral hypotonia and the usefulness of whole exome sequencing in establishing an accurate diagnosis when relatively uncommon diseases are suspected.





ABSTRACT ID: PP 265

Title	Beyond Diagnosis: Delivering Home-Based Palliative Respiratory Care in Infantile Spinal Muscular Atrophy- Werdnig Hoffmann disease
Authors	Ashani Dinushika ¹ , Udari Ruwanpathirana ¹ , Jithma Fonseka ¹ , Ganga Hapuarachchi ¹
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ABSTRACT

Introduction: Spinal muscular atrophy (SMA) is a severe autosomal recessive neuromuscular disorder caused by deletion or mutation of the survival motor neuron 1 (SMN1) gene, resulting in progressive degeneration of anterior horn cells. Type 1, the most severe form, presents in early infancy with profound hypotonia, bulbar weakness and progressive respiratory failure.

Case Presentation: We describe a two-month-old term infant, second born to nonconsanguineous healthy parents, who presented with respiratory distress since birth and was initially treated as congenital pneumonia and neonatal sepsis. Clinical examination revealed generalized severe symmetrical proximal limb hypotonia and weakness, absent deep tendon reflexes, tongue fasciculations, paradoxical breathing, a bell-shaped chest and a weak cry, while the infant remained alert and socially interactive. The infant remained oxygendependent despite normal follow-up chest radiography and echocardiography. Genetic testing confirmed homozygous deletion of exons 7 and 8 of the SMN1 gene, establishing the diagnosis .

In a resource-limited setting, palliative care with long-term home oxygen therapy was initiated. Continuous oxygen supply, backup electrical support, environmental modifications and pulse oximetry were arranged. Community health services and relevant Presenting Authorities were informed, a contingency plan for respiratory deterioration was established, and parents were trained in basic life support and chest physiotherapy. Social welfare support, caregiver psychosocial follow-up and additional immunizations were coordinated to optimise continuity of care.

Conclusion: Coordinated home-based palliative respiratory care is feasible in resourcelimited settings through multidisciplinary and community-level support. In the absence of disease-modifying therapy, the condition follows a severe course with early respiratory failure.





ABSTRACT ID: PP 266

Title	Autoimmune Encephalitis as a Rare Neurological Manifestation of Allgrove syndrome
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ABSTRACT

Introduction: Allgrove syndrome (Triple A syndrome) is a rare autosomal recessive disorder with classical triad of achalasia, alacrima, and adrenal insufficiency. Although neurological involvement—such as peripheral neuropathy, autonomic dysfunction, and pyramidal involvement, the autoimmune encephalitis has been rarely described in association with this condition. The most frequent and consistent neurological manifestations is cognitive impairment.

Case presentation: A 6-year-old boy born to non-consanguineous parents, previously healthy, presented with acute behavioral changes, seizures, and altered sensorium, based on the presence of acute encephalopathy, seizures, supportive neuroimaging, EEG findings, CSF inflammatory changes, and exclusion of infection, a diagnosis of autoimmune encephalitis was made. The child was treated with intravenous immunoglobulin (IVIG) and intravenous methylprednisolone. He showed clinical improvement and was followed up in the pediatric clinic.

Subsequently, reported skin hyperpigmentation, including nail and buccal mucosa. On reevaluation, she reiterated the longstanding history of alacrima and swallowing difficulties. Achalasia confirmed on barium swallow, Short Synacthen test confirmed adrenal insufficiency. Hydrocortisone replacement therapy was started, paediatric surgical and ophthalmology follow-up arranged. At 6-month follow-up, there was no recurrence of seizures or encephalitis. However, gradual cognitive decline was noted.

Conclusion: Autoimmune encephalitis may represent a rare neurological manifestation of Allgrove syndrome. Ongoing neurodevelopmental monitoring is essential, as cognitive decline may occur despite seizure control and appropriate endocrine management.





ABSTRACT ID: PP 267

Title	A Brain Tumour Mimic in Childhood: A case of Tumefactive Demyelination
Authors	Siyabalagaha Gedara Yuresha Surangani ¹ , Harshana Eranga ¹ , Anushka Jayawardena ¹ , Damitha Chandradasa ¹ , Nadun Vithanage ¹
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ABSTRACT

Introduction: Tumefactive Demyelination (TD) is an uncommon paediatric presentation of demyelinating disease and poses a significant diagnostic challenge due to its close clinical and radiological resemblance to intracranial tumours or infarction. Early recognition is crucial to avoid unnecessary invasive procedures and to facilitate timely management.

Case Presentation: We report a previously healthy 13-year-old boy who presented with acute right sided hemiplegia, preceded by a sudden decline in fine motor function affecting handwriting. There were no other associated symptoms. Baseline blood investigations and cerebrospinal fluid analysis, including Oligoclonal Bands were normal. Contrast-enhanced CT of the brain demonstrated a focal abnormality in the left precentral region, raising suspicion of a tumour or infarction. Subsequent MRI revealed a large left frontal subcortical white matter lesion involving the precentral gyrus, with thin open-ring enhancement, peripheral diffusion restriction, and mild mass effect, consistent with Tumefactive demyelination. He was treated with intravenous methylprednisolone, immunoglobulin followed by a tapering course of oral prednisolone with mycophenolate mofetil and vitamin D supplementation, resulting in significant clinical improvement. Follow up MRI at two months showed marked lesion regression, with no evidence of active demyelination or spinal cord involvement, confirming the diagnosis.

Conclusion: This case highlights TD as a rare but important mimic of intracranial tumours, in paediatric practice. Recognition of characteristic MRI features particularly thin open-ring enhancement with the incomplete margin facing the grey matter together with interval imaging following immunomodulatory therapy, is pivotal in preventing misdiagnosis and avoiding unnecessary neurosurgical intervention.





ABSTRACT ID: PP 268

Title	When Infection Masquerades as a Tumour: Intramedullary Spinal Cord Abscess with myelitis in a Toddler
Authors	Siyabalagaha Gedara Yuresha Surangani ¹ , Harshana Eranga ¹ , Anushka Jayawardena ¹ , Damitha Chandradasa ¹ , Nadun Vithanage ¹
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ABSTRACT

Introduction: Intramedullary spinal cord abscess (ISCA) is an exceptionally rare yet potentially life threatening paediatric condition. Despite being a treatable cause of acute paraparesis or tetraparesis, diagnosis is often delayed owing to its rarity and nonspecific early clinical and radiological features, emphasising the importance of early recognition.

Case Presentation: We report a 2-year–5-month-old late preterm boy with failure to thrive who was referred with high grade fever and rapidly progressive left predominant flaccid tetraplegia, absent deep tendon reflexes, and preserved sensation and higher cortical functions. Inflammatory markers were markedly elevated. Cerebrospinal fluid analysis demonstrated raised protein, hypoglycorrhachia, lymphocytic pleocytosis and sterile cultures. Screening for immunodeficiency, tuberculosis, melioidosis, and retroviral infections was negative. Contrast-enhanced CT of the brain and spine and magnetic resonance imaging (MRI) of the brain were normal. While initial spinal MRI raised concerns for an intramedullary neoplasm, serial imaging demonstrated a solitary thoracolumbar intramedullary abscess with extensive myelitis extending from the obex to conus. Radiological improvement on serial imaging further supported an infective rather than neoplastic aetiology, serving as a critical distinguishing feature. An aggressive multidisciplinary medical approach, comprising intravenous immunoglobulin, antimicrobials, antifungals, anti-tuberculous therapy, and rehabilitation resulted in significant clinical improvement without requiring neurosurgical intervention.

Conclusion: This case emphasises the diagnostic complexity and rarity of paediatric ISCA, in which early imaging may be deceptive. Clinical vigilance, supported by serial spinal MRI in febrile children with acute limb weakness enables timely medical management, potentially avoiding surgical intervention and improving neurological outcomes.





ABSTRACT ID: PP 269

Title	When a Child seeks Light; Sunflower Syndrome - A case report
Authors	Don Renu Kaushalya Kalansooriya ¹ , Kumuduni Cooray ¹ , Rashmi Karunaratne ¹ , Piyumi Ranasinghe ¹ , Selvakumar Lventhini ¹ , Dinouki Paranavitana ¹
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ABSTRACT

Introduction: Sunflower syndrome(self-induced photo sensitive epilepsy) is a rare epileptic disorder characterized by stereotyped behavior, comprising of obsessively seeking out light source ,staring at the light source and hand flapping in front of the eyes upon exposure to light.

Case discussion: 6 year old neurodevelopmentally normal, otherwise healthy girl presenting with abnormal repetitive waving of the left hand in front of the face followed by excessive eye fluttering and occasional inattentiveness when exposed to bright lights, since the age of 3.5 years. The frequencies of these episodes were around 25 times/hour each lasting about 5 seconds hindering her school activities.

The patient unfortunately, at first was misdiagnosed as having features suggestive of Autism spectrum disorder and was started on sertraline. She was referred to the pediatric clinic by the school teacher due to this seemingly unusual behavior. Her EEG revealed diffuse poly spike waves with normal background activity. She was started on sodium valproate which drastically reduced the seizure frequency.

Conclusion: Sunflower syndrome is described as a rare self-Induced, reflexive epilepsy syndrome with photic triggers. Its clinical features are both highly unique and specific. Pathogenesis of this syndrome is unclear but electroencephalography and imaging study have suggested cingulate circuit to be the anatomical substrate. EEG along with clinical history aid in the diagnosis of sunflower epilepsy. Though extremely refractory to treatment valproate, levetiracetam, ethosuximide, benzodiazepines and lamotrigine provide more effective treatment. Lack of awareness results in a diagnostic delay/misdiagnosis and leads to unnecessary investigations and adverse health impact to patient.





ABSTRACT ID: PP 270

Title	Transanal Extrusion of a Ventriculoperitoneal Shunt in a Child with Schizencephaly: A Rare and Silent Complication
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ABSTRACT

Introduction: Ventriculoperitoneal (VP) shunting continues to be the standard treatment for hydrocephalus. Although considered relatively safe, it is associated with recognized complications such as infection, obstruction, and mechanical failure. Abdominal

complications of VP shunts include extrusion through the surgical incision and migration of the catheter into different intra-abdominal compartments. Bowel perforation with transanal catheter extrusion is a rare but well-documented event, occurring in approximately 0.1%–0.7% of cases.

Case Presentation: We report a 15-month-old girl with schizencephaly and communicating hydrocephalus who underwent left-sided VP shunt placement at 8 months of age. At 15 months, she presented with a history of a tube protruding from the anus, associated with clear fluid discharge, without fever or other systemic manifestations. On clinical evaluation, there were no signs of peritonitis, meningitis, or systemic sepsis. Rectal examination confirmed extrusion of the catheter through the anus. Abdominal ultrasonography revealed no intra-abdominal collection, while plain abdominal radiography confirmed distal catheter migration into the bowel lumen. In coordination with pediatric surgeons, the proximal shunt was externalized, and the distal segment was carefully removed transanally. Empirical broad-spectrum intravenous antibiotics were commenced, and cerebrospinal fluid analysis and cultures remained sterile.

Conclusion: Transanal extrusion of a VP shunt may occur insidiously, without evident abdominal or central nervous system infection. Maintaining a high index of suspicion, timely shunt externalization, appropriate antibiotic therapy, and delayed contralateral reinsertion are essential for favorable outcomes. Early multidisciplinary intervention plays a pivotal role in preventing severe infectious complications.





ABSTRACT ID: PP 271

Title	Chikungunya-associated Encephalomyelitis in a Child: A Case Report
Authors	Kaluhath Gayathree Lalanga De Abrew ¹ , Ayesha Yaddahi ¹ , Sampath Senavirathne ¹ , Shenoli Wijesinghe ¹ , Rasika Gunapala ¹ , Deshan Adihetti ¹ , Pyara Rathnayake ¹ , Nalin kithulwaththa ¹
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ABSTRACT

Introduction: Chikungunya virus is an arthropod-borne infection that typically causes a self-limiting febrile illness. Neurological complications are uncommon. These may include encephalitis, myelitis, and immune-mediated conditions such as Bickerstaff brainstem encephalitis (BBE). Early recognition is important, as timely immunotherapy can significantly improve outcomes.

Case Presentation: An 18-month-old previously healthy boy presented with five days of high-grade fever and diarrhea, followed by irritability, progressive bilateral ptosis, bulbar symptoms, and generalized motor weakness. Neurological examination revealed hypotonia with hyperreflexia and bilateral extensor plantar responses. Thereafter he developed respiratory compromise requiring elective ventilation. MRI brain findings were suggestive of encephalitis, while nerve conduction studies showed reduced motor responses with preserved sensory conduction, consistent with myelitis. Chikungunya IgM was positive. After initial antibiotics, he was treated with intravenous immunoglobulin, methylprednisolone, and therapeutic plasma exchange, leading to gradual clinical improvement.

Conclusion: This case highlights a rare presentation of chikungunya-associated encephalomyelitis mimicking BBE in a young child. Clinicians in endemic areas should maintain a high index of suspicion for neuroinvasive chikungunya in children with acute brainstem or motor symptoms, as early immunotherapy can lead to favorable outcomes.





ABSTRACT ID: PP 272

Title

When the midline defects fails to form: isolated holoprosencephaly sequence

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ABSTRACT

Introduction: Holoprosencephaly (HPE) sequence is a rare brain malformation caused by incomplete division of the forebrain during early embryonic life. It shows a wide spectrum of severity and is commonly associated with characteristic midline craniofacial anomalies. Although many cases are linked to chromosomal disorders and multisystem syndromes, isolated holoprosencephaly with a normal karyotype is uncommon. About twelve percent of cases are non-syndromic and linked to pathogenic variants in SHH, ZIC2, SIX3, and TGIF genes, most often affecting the Sonic hedgehog signalling pathway, with variable clinical expression.

Case Presentation: We report a two-month-old infant born to healthy non-consanguineous parents with a healthy sibling, who presented with recurrent subtle motor seizures. Typical facial features were present, including hypotelorism, microphthalmia, cleft lip and palate, microcephaly, and absence of the philtrum and nasal septum. Brain imaging confirmed holoprosencephaly with agenesis of the corpus callosum. Chromosomal analysis was normal (46,XX). Radiology showed no significant renal structural anomalies or gallbladder agenesis. Endocrine evaluation excluded hypopituitarism, and no hypoglycaemic episodes occurred. Seizures were partially controlled with multiple anticonvulsants, with burst-suppression on EEG. Nutritional support was provided via nasogastric feeding. Hearing and vision assessments were reassuring, with no cataracts, coloboma, or sensorineural hearing loss. Cardiac assessment revealed a small ASD. No genitourinary, skeletal, neural tube were identified. Chest radiography showed no diaphragmatic hernia or thymic hypoplasia. Despite optimal supportive care, the infant demonstrated suboptimal growth and weight gain.

Conclusion: Non-syndromic isolated holoprosencephaly sequence requires detailed genomic evaluation for prognostication, family counselling and multidisciplinary interventions.





ABSTRACT ID: PP 273

Title	Acute Paediatric Cerebral Venous Sinus Thrombosis Unmasking Familial Hyperlipidaemia : A Rare Presentation
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ABSTRACT

Introduction: Cerebral Venous Sinus Thrombosis (CVST) is a rare but potentially life-threatening cerebrovascular disorder in children. While inherited and acquired prothrombotic conditions are recognised risk factors, dyslipidaemia is rarely reported as a contributing factor in the paediatric population.

Case Presentation: A 12-year-old previously healthy boy, third born to non-consanguineous parents, presented with a 10-day history of frontal headache worsening over three days, which was associated with 1-2 daily episodes of vomiting and posterior neck pain. He subsequently developed acute onset bilateral painless visual loss. On the second day of admission, he experienced right-sided focal seizures followed by deterioration in Glasgow Coma Scale (GCS). Paternal history of hyperlipidaemia with venous thrombosis was noted.

Examination revealed an overweight child (BMI 26.3 kg/m²) with markedly reduced visual acuity. Other systemic and neurological examinations were unremarkable. Fundoscopy findings were suggestive of raised intracranial pressure.

Lipid profile demonstrated elevated total cholesterol (284 mg/dL) and low density lipoprotein (LDL) (200mg/dL), with high density lipoprotein (HDL) 54 mg/dL and triglycerides 149 mg/dL. Other haematological and biochemical parameters were normal. CT cerebral venography revealed thrombosis in bilateral parasagittal frontal and parietal regions and left occipital region, with a small hemorrhagic focus in the left temporal region. Genetic analysis was deferred due to financial constraints.

Therapeutic anticoagulation with enoxaparin, later transitioned to warfarin and statin therapy were initiated.

Conclusion: This case highlights CVST as a rare presentation of familial hyperlipidaemia, emphasising early neuroimaging, prompt anticoagulation, cardiovascular risk assessment, and structured family screening to reduce morbidity and prevent future thrombotic events.





ABSTRACT ID: PP 274

Title	Case report on Congenital Myasthenic Syndrome Presenting with Early Respiratory Failure and Bulbar Dysfunction: A Treatable Cause of Infantile Hypotonia
Authors	Haresha Vidanapathirana ¹ , Hemali De Silva ¹ , Mihidu I Jayarathne ¹ , Hasitha Gajaweera ¹ , W.G.A. Dinushika ²
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ABSTRACT

Introduction: Congenital myasthenic syndromes (CMS) are rare inherited disorders of the neuromuscular junction caused by defects in synaptic transmission. They typically present in early infancy with hypotonia, ptosis, feeding difficulties, and recurrent respiratory failure. Early recognition is essential because several subtypes respond well to acetylcholinesterase inhibitors, resulting in significant functional improvement.

Case Presentation: We report a female infant, the third child of non-consanguineous parents, with a history of neonatal sibling death due to congenital heart disease. She underwent patent ductus arteriosus ligation at 42 days while on treatment for severe pneumonia complicated by heart failure, requiring prolonged mechanical ventilation with two failed extubations. At two months, she developed another severe pneumonia episode requiring one week of ventilatory support. Persistent generalized hypotonia, delayed gross motor development, dysphagia requiring nasogastric feeding from two months, and failure to thrive were noted. There was no tongue fasciculation or paradoxical breathing. Examination revealed bilateral ptosis, microphthalmia, and retinochoroidal coloboma. Serum creatine phosphokinase, thyroid function, metabolic profile, neuroimaging, electromyography, and nerve conduction studies were normal. Repetitive nerve stimulation showed a decremental response, and elevated acetylcholine receptor antibodies confirmed a neuromuscular junction disorder. Treatment with neostigmine and pyridostigmine resulted in marked improvement in tone, swallowing, and motor milestone acquisition. Genetic testing was not performed due to financial constraints.

Conclusion: This case highlights the importance of considering CMS in infants with unexplained hypotonia and recurrent respiratory failure despite normal routine investigations. Early electrophysiological testing and timely initiation of acetylcholinesterase inhibitors can significantly improve neuromuscular function and developmental outcomes.





ABSTRACT ID: PP 275

Title	GABA Transaminase deficiency
Authors	Withana Arachchilage Chalani Nisansala Karunarathna ¹ , Vindya Subasinghe ² , Shenoli Wijesingha ² , R.A.N.K.K.Samarasinghe ² , Pyara Ratnayake ²
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ABSTRACT

Introduction: Gamma-aminobutyric acid (GABA) is the major inhibitory neurotransmitter in the central nervous system. GABA transaminase is the enzyme responsible for GABA degradation, and its deficiency leads to elevated endogenous GABA levels, resulting in early-onset epileptic encephalopathy and severe neurodevelopmental impairment. It is inherited in an autosomal recessive manner.

Case Presentation: A 10-month-old girl born to fourth-degree consanguineous healthy parents, with an apparently healthy male sibling, presented with excessive crying, clusters of epileptic spasms and global developmental delay noted since 2 months of age. There was no significant antenatal or perinatal history. Electroencephalography showed hypsarrhythmia. She did not respond to steroids or vigabatrin, and crying worsened after initiation of vigabatrin.

On examination, she had central hypotonia, hyperreflexia, oculomotor apraxia, and cerebral visual impairment. The developmental age was less than 3 months across all domains. Brain MRI demonstrated symmetrical signal abnormalities in the bilateral periventricular deep white matter suggestive of metabolic encephalopathy. Metabolic investigations were normal. Whole-exome sequencing identified a homozygous variant of uncertain significance in the ABAT gene, c.826G>C (p. Glu276Gln), leading to GABA transaminase dysfunction. Replacement of vigabatrin with topiramate resulted in marked improvement in crying and epileptic spasms.

Conclusion: Although the ABAT variant was of uncertain significance, the clinical and MRI findings were characteristic of GABA transaminase deficiency. Improvement following withdrawal of vigabatrin, a GABAergic agent, supports the pathogenic nature of the mutation. The report highlights the importance of genetic evaluation in drug-resistant epileptic encephalopathy.





ABSTRACT ID: PP 276

Title

A case of Sturge-Weber Syndrome Presenting With Refractory Focal Epilepsy and Recurrent Transient Hemiparesis Without Neurocutaneous Stigmata

Authors

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ABSTRACT

Introduction: Sturge-Weber syndrome (SWS) is a sporadic vascular developmental disorder. While classically associated with a facial capillary malformation, some children present without skin signs, delaying diagnosis. There are three types of SWS according to the Roach scale, where type 3 presents with only leptomeninges without neurocutaneous or eye involvement.

Case presentation: A 1-year-7-month-old girl with left focal motor seizures since 1 year of age, poorly responsive to multiple anti-seizure medicines, presented with three episodes of transient left-sided weakness lasting for 2-3 minutes over 48 hours. Previous post-ictal weakness had been treated as Todd's paralysis at 1 year of age. Her development was age-appropriate. Normal neurological manifestation, no neurocutaneous manifestations. Full blood count, electrolytes, renal and liver functions, arterial blood gas, ammonia, lactate, uric acid and coagulation studies were normal. EEG showed right fronto-parietal epileptiform discharges. MRI brain revealed mild right hemispheric volume loss with abnormal vasculature consistent with SWS (Roach Type III). Ophthalmology assessment was normal.

Conclusions: This case highlights Roach Type III SWS as an important consideration in refractory focal epilepsy with recurrent transient hemiparesis even without a facial capillary malformation.

Follow-up arranged with regular ophthalmology screening for glaucoma 3-6 monthly in early childhood, then annually, neurodevelopmental surveillance, optimisation of seizure control, referral to an epilepsy surgery programme if seizures remain medically refractory, and caregiver education on emergency seizure management.





ABSTRACT ID: PP 277

Title	Neurobehavioral Changes Unmasking Cerebral Venous Sinus Thrombosis Following Hypernatremic Dehydration Secondary to Acute Gastroenteritis
Authors	D. Sachini Kaushalya Weerakkody ¹ , Lakshi Selvakumar ¹ , Kosala Karunarathna ¹ , Pyara rathnayaka ¹ , Sheno Wijesingha ¹
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ABSTRACT

Introduction: Cerebral venous sinus thrombosis (CVST) is a rare but serious neurological emergency in children. Clinical manifestations are often nonspecific, and recognised precipitating factors include dehydration, infection and prothrombotic states. Early diagnosis and prompt anticoagulation are essential to minimise neurological sequelae.

Case: A previously healthy 4-year-7-month-old girl presented with a three-day history of fever, vomiting and watery diarrhoea, followed by focal seizures and reduced consciousness. On admission, she was hypotensive and clinically dehydrated with hypernatremia (serum sodium 154 mmol/L) and managed as septic shock. She required intubation and intensive care support. Blood cultures were sterile, cerebrospinal fluid analysis was normal, and computed tomography showed mild cerebral oedema. During recovery, she developed new behavioural changes. Although a post-infectious autoimmune process was considered, persistent neurological concerns prompted further evaluation. Magnetic resonance imaging with venography revealed extensive acute thrombosis of the bilateral transverse and sigmoid sinuses, jugular bulb and proximal internal jugular vein, without infarction or haemorrhage. She was treated with gradual correction of hypernatremia, broad-spectrum antibiotics and therapeutic anticoagulation with low-molecular-weight heparin, later bridged to warfarin (target INR 2–3). Gradual neurological improvement was observed, and behavioural symptoms improved on follow-up.

Conclusion: This case highlights hypernatremic dehydration as an important reversible risk factor for paediatric CVST and underscores the need for early neuroimaging in children with evolving neurobehavioural changes after acute systemic illness.





ABSTRACT ID: PP 278

Title

Suspected Hereditary Sensory And Autonomic Neuropathy Type V Presenting With Recurrent Osteomyelitis And Self Mutilation In A Young Child

Authors

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ABSTRACT

Introduction: Hereditary sensory and autonomic neuropathies (HSAN) are a heterogeneous group of disorders characterized by impaired pain perception and autonomic dysfunction, predisposing affected individuals to recurrent injuries, infections, fractures, and self-mutilation. Due to their rarity diagnosis is often delayed. We report a child with recurrent osteomyelitis and pain insensitivity in whom HSAN type V was suspected.

Case Presentation: A 3-year-11-month-old boy, born to consanguineous parents, presented with painless swelling of the left leg without fever and was found to have a left tibial abscess. Facial asymmetry noted at presentation was later attributed to mandibular osteomyelitis. He had a history of recurrent osteomyelitis, cellulitis, and soft-tissue abscesses, with self-amputation of a toe and self-avulsion of teeth. There was no history of recurrent sinopulmonary infections. He showed no distress during venepuncture and had unusually high tolerance to spicy food, with no history of sweating abnormalities or unexplained temperature instability. Emotional tearing was preserved. Developmental assessment revealed global developmental delay, mainly affecting gross motor and speech domains. Ophthalmological evaluation demonstrated corneal ulceration. Nerve conduction studies showed normal nerve conduction velocities; however, there was no pain response to maximum painful electrical stimulation, confirming impaired pain perception.

Conclusion: The clinical features and investigations are highly suggestive of HSAN type V. Although genetic confirmation is ideal, access remains limited in resource-constrained settings. Therefore, HSAN should be considered in children presenting with recurrent unexplained injuries, osteomyelitis, and self-mutilation in the absence of pain perception. Early recognition is essential to facilitate appropriate management and improve long-term outcomes.





ABSTRACT ID: PP 279

Title	Hemiplegic Migraine Mimicking Transient Ischemic Attacks in Early Adolescence: A Case Report
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ABSTRACT

Introduction: Hemiplegic migraine is a rare presentation in children and adolescence, and can present with a range of symptoms that can mislead clinicians. Diagnosis can be challenging where neurological symptoms are prominent.

Case Presentation: A 13 year old girl presented with sudden onset severe unilateral occipital headache, associated with contralateral hemiparesis, loss of vision and aphasia lasting for 45 minutes. All neurological symptoms resolved except for the headache which persisted for several hours. Upon questioning, it was revealed that she had a history of on-and-off unilateral headache for two weeks, but was free of red flag signs. The diagnosis was further confounding as she had a third degree relative who had a young death due to cerebral aneurysm rupture. There were no neurological deficits on examination. Investigations including FBC, ESR, blood picture, clotting profile, ECG, X-ray chest, renal artery and carotid doppler studies, NCCT, EEG and CT angiogram of head and neck were normal.

Echocardiogram detected an atrial septal defect, and device closure was done immediately due to the possibility of thromboembolic event.

However, the patient presented with similar episodes of TIA despite cardiac intervention, raising the suspicion of hemiplegic migraine. She was started on migraine prophylaxis, and showed an excellent response with no further episodes of headache or hemiparesis, confirming our clinical diagnosis.

Conclusion: This case adds to the rare but documented stroke-like presentation of hemiplegic migraine occurring in teenagers. It highlights the importance of excluding neurological etiologies, while clinically diagnosing migraines.





ABSTRACT ID: PP 280

Title	Case report of Myaesthesia Gravis with Idiopathic Thrombocytopenic Purpura
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ABSTRACT

Introduction: Myasthenia gravis (MG) is an antibody-mediated disorder of the neuromuscular junction characterized by fluctuating muscle weakness and fatiguability. Immune thrombocytopenic purpura (ITP) is an autoimmune condition causing thrombocytopenia and increased risk of bleeding. Co-occurrence of MG and ITP is rare, particularly in paediatric population. We report the case of a child with refractory ITP who subsequently developed MG and achieved remission following rituximab.

Case Report: A 9-year-old girl was diagnosed with ITP and started on oral prednisolone. Three months later, she developed bilateral ptosis. Clinical examination demonstrated fatiguability; sustained upward gaze resulted in worsening ptosis. Anti-AChR and anti-MuSK antibodies was negative. CT scan showed thymic hyperplasia. She was diagnosed with seronegative Juvenile Ocular MG. Pyridostigmine was started with mild improvement in ocular symptoms. Subsequently, she developed proximal limb weakness and progressed to generalized MG. She received intravenous immunoglobulin (IVIG). Given ongoing refractory ITP and worsening MG, treatment was escalated to rituximab.

Following rituximab, platelet counts normalized and myasthenic symptoms resolved. Pyridostigmine was discontinued. She has remained in clinical remission from both haematological and neuromuscular perspectives.

Conclusion: MG may coexist with other autoimmune conditions, though association between MG and ITP in children is rare. First-line therapy for both MG and ITP commonly include corticosteroids. Rituximab has emerged as an effective treatment for refractory ITP and MG. In our patient, early use of rituximab resulted in remission of both autoimmune conditions. Further studies are needed to investigate co-existence of MG and ITP and whether earlier introduction of rituximab improves remission rates.





ABSTRACT ID: PP 281

Title	Leukodystrophy-Like MRI Changes and Status Epilepticus as an Initial Manifestation of L-2-Hydroxyglutaric Aciduria: A Case Report
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ABSTRACT

Introduction: L-2-hydroxyglutaric aciduria (L-2-HGA) is a rare autosomal recessive neurometabolic disorder caused by pathogenic variants in L2HGDH, leading to accumulation of the neurotoxic metabolite L-2-hydroxyglutarate. It typically presents with progressive developmental delay, seizures, and characteristic but non-specific bilateral white-matter abnormalities on MRI. Diagnostic delay is common due to overlap with leukodystrophies and epileptic encephalopathies. Early-onset status epilepticus is an uncommon presentation.

Case presentation: We report a 7-year-old boy with speech delay, learning difficulties, behavioural disturbances, and recurrent generalized tonic-clonic seizures. Notably, he experienced two episodes of status epilepticus in infancy. Neurological examination was normal. EEG demonstrated diffuse background slowing without epileptiform discharges. Brain MRI showed bilateral, symmetric confluent periventricular, deep, and subcortical white-matter signal abnormalities with relative U-fiber sparing, initially suggestive of leukodystrophy. Urine organic acid analysis revealed marked isolated elevation of 2-hydroxyglutaric acid, with only a trace increase in ethylmalonic acid. Whole-exome sequencing identified a pathogenic L2HGDH variant, confirming L-2-HGA. Other metabolic and systemic investigations were unremarkable. Riboflavin and L-carnitine supplementation were initiated.

Conclusions: This case expands the recognised clinical spectrum of L-2-HGA by highlighting early-onset status epilepticus with leukodystrophy-like MRI changes. Neuroimaging alone may be misleading; integrated metabolic and molecular evaluation is essential for accurate diagnosis. Increased awareness of this atypical presentation may facilitate earlier recognition, targeted investigation, appropriate counselling, and timely management, particularly in resource-limited settings.





ABSTRACT ID: PP 282

Title

Genetically confirmed Canavan disease presenting as post-infectious developmental regression: a diagnostic challenge

Authors

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ABSTRACT

Introduction: Canavan disease is a rare autosomal recessive leukodystrophy caused by pathogenic variants in the ASPA gene, resulting in aspartoacylase deficiency and progressive spongiform degeneration of cerebral white matter. It typically manifests in early infancy with hypotonia, macrocephaly, seizures, and severe developmental delay. However, clinical variability and overlap with acquired neurological insults may obscure early diagnosis. Recognition of characteristic neuroimaging patterns is critical, particularly in nonconsanguineous families.

Case presentation: A 1-year-9-month-old male born at term to non-consanguineous parents was evaluated for global developmental delay and regression following bronchopneumonia with presumed meningitis at 4 months of age. Development had been normal prior to this illness. At presentation, he was unable to sit even with support but could roll laterally. Partial recovery of previously lost head control and palmar grasp was noted. Social interaction and babbling were preserved, and no definite seizures were documented.

Examination revealed generalized hypertonia, exaggerated reflexes, dystonia, and nystagmus. Occipitofrontal circumference measured 49 cm (+1 SD). Brain MRI demonstrated markedly delayed myelination, limited to the posterior limb of the internal capsule, with T2 hyperintensities involving the posterior corpus callosum and bilateral globus pallidus. Genetic testing confirmed a pathogenic ASPA mutation.

Conclusions: This case highlights the importance of considering leukodystrophy in infants presenting with apparent post-infectious regression. Even in the absence of seizures or significant macrocephaly, characteristic MRI findings should prompt genetic evaluation. Early molecular confirmation enables accurate prognostication, anticipatory multidisciplinary management, and essential genetic counseling for recurrence risk.





ABSTRACT ID: PP 283

Title	Think Beyond Common: A Bewildering Case and Cause of Opsoclonus Myoclonus Ataxia Syndrome.
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ABSTRACT

Background: Opsoclonus Myoclonus Ataxia Syndrome (OMAS), is an unusual autoimmune neurological manifestation. The common underlying triggers are either paraneoplastic or parainfectious while toxins and metabolite are less frequent. Neuroblastoma is the most common paraneoplastic condition in children. While in parainfectious causes variety of viral and bacterial association has been implicated.

Case report: A 13-year-old male boy was presented with complaints of weakness, difficulty in standing and walking and abnormal eye movement from past 6 days. He had an episode of typhoid fever 15 days back and got relieved from acute enteritis symptoms within 10- 15 days but after that he developed all the classic symptoms of opsoclonus, myoclonus, ataxia, mood disturbances and reduced sleep within 2 – 3 days. His MRI brain, CSF analysis for oligoclonalband, EEG, PET scan whole body and VMA in urine were within normal limits except for Widal test. He was treated with IVIG and Dexamethasone. All his symptoms subsided fully after first cycle of immunosuppressive therapy.

Conclusion: Although paraneoplastic condition is a common cause of OMAS in children but parainfectious causes are also important. Moreover, this case underscores that OMAS could be an immune mediated neurological complication of typhoid fever.





ABSTRACT ID: PP 284

Title	Cranial Nerve-Predominant Guillain-Barré Syndrome Without Ascending Weakness in a Pediatric Patient: A Case Report
Authors	Abeykoon Jalath Rathnayake Osman Smith ¹ , Wickramasooriya Arachchige Chamodi Madushani Shani ¹ , Buddhima Yasasvi Samarawickckrama ¹ , Neel Kannangara ¹
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ABSTRACT

Introduction: Classical Guillain-Barré syndrome (GBS) typically presents with progressive ascending motor weakness and areflexia. However, variant forms with predominant cranial nerve involvement without characteristic limb paralysis constitute approximately 5-10% of pediatric GBS cases. Recognition of these atypical presentations is crucial for timely intervention to prevent respiratory compromise.

Case Presentation: A 10-year-old girl presented with acute-onset muscle pain and fatigue. Neurological examination revealed unilateral left facial nerve palsy with reduced lower extremity reflexes, while motor strength remained intact throughout all muscle groups. The typical ascending weakness pattern was notably absent. Within 48 hours, clinical deterioration occurred with right-sided facial involvement, voice changes, and tongue weakness, indicating bilateral facial and bulbar cranial nerve dysfunction. Non-contrast brain computed tomography showed normal findings. Cerebrospinal fluid analysis demonstrated isolated protein elevation (45 mg/dL) with normal cell count, confirming protein-cell dissociation. Nerve conduction studies revealed acute inflammatory demyelinating polyradiculoneuropathy pattern despite preserved clinical motor function. Intravenous immunoglobulin (2 g/kg over five days) was initiated promptly. Marked clinical improvement occurred within 72 hours, with progressive resolution of cranial nerve deficits and avoidance of respiratory complications.

Conclusion: This case illustrates a rare cranial nerve-predominant GBS variant with bilateral facial palsy and bulbar involvement without ascending motor weakness. Early recognition is critical as bulbar dysfunction may rapidly progress to respiratory failure. Nerve conduction abnormalities may precede obvious clinical weakness, requiring high clinical suspicion. Prompt IVIG treatment prevents respiratory compromise in atypical presentations, emphasizing the importance of early recognition in pediatric populations.





ABSTRACT ID: PP 285

Title

Central and Peripheral Nervous System Involvement in Pediatric Chikungunya Infection: A Case of Encephalitis Followed by AMSAN-Guillain Barre syndrome

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ABSTRACT

Introduction: Chikungunya virus (CHIKV) is an emerging neurotropic arbovirus capable of causing significant neurological morbidity. While encephalitis and Guillain Barre syndrome (GBS) have been individually reported, sequential involvement of the central and peripheral nervous systems in children is exceptionally rare, particularly in axonal variants.

Case Presentation: A previously healthy 9-year-old boy developed fever and rash during a household chikungunya outbreak. Following subsidence of fever, he developed acute behavioral changes, hallucinations, and altered consciousness consistent with encephalitis. Within days, he progressed to rapidly ascending flaccid paralysis with sensory loss, urinary retention, and autonomic instability. Electroencephalography showed diffuse slowing, cerebrospinal fluid revealed cytoprotein dissociation, and serum chikungunya IgM was positive. MRI brain demonstrated mild generalized cerebral volume loss. Initial nerve conduction studies were normal, but repeat studies confirmed acute motor sensory axonal neuropathy (AMSAN), a severe axonal variant of GBS. He required intensive care, multiple courses of intravenous (IV) immunoglobulin, IV Rituximab, five cycles of plasma exchange, prolonged multidisciplinary care and rehabilitation.

Conclusions: This case highlights the ability of chikungunya infection to cause a biphasic neurological illness with sequential encephalitis and AMSAN type GBS in a child. Clinicians in endemic regions should maintain a high index of suspicion for evolving peripheral neuropathy following chikungunya associated encephalopathy. Serial neurophysiological studies, early immunomodulatory therapy, and effective rehabilitation are critical to optimize outcomes.





ABSTRACT ID: PP 286

Title

Paediatric Transverse Myelitis: An Unusual Case of Treatment-Resistant Spinal Cord Inflammation

Authors

Abeykoon Jalath Rathnayake Osman Smith¹, Wickramasooriya Arachchige Chamodi Madushani Shani¹, Rukshani Gunaratne¹, Parameshwaran Prasanna¹, Anuruddha Padeniya¹

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ABSTRACT

Introduction: Transverse myelitis (TM) represents an inflammatory spinal cord disorder causing motor, sensory, and autonomic dysfunction. Most pediatric cases follow a monophasic course with favorable immunotherapy response. Traditional pathophysiology involves postinfectious immune-mediated demyelination, where molecular mimicry triggers antibody production against spinal cord antigens. Standard therapies such as corticosteroids, intravenous immunoglobulin, and plasma exchange typically yield positive outcomes. However, treatment-refractory cases challenge conventional understanding and suggest alternative etiologies. This report describes a pediatric patient with acute TM demonstrating unexpected resistance to aggressive immunomodulatory interventions, prompting reconsideration of underlying pathophysiological processes.

Case Presentation: A 12-year-old boy presented with acute bilateral lower extremity weakness evolving over 24 hours. Examination revealed complete paraplegia, mid-thoracic sensory level, and loss of bladder and bowel control. Spinal magnetic resonance imaging confirmed longitudinally extensive transverse myelitis with characteristic T2-weighted signal abnormalities spanning multiple vertebral segments. Inflammatory markers were significantly elevated (C-reactive protein 312 mg/L). The patient underwent comprehensive immunomodulatory therapy including high-dose corticosteroids, intravenous immunoglobulin, and plasma exchange. Contrary to expected outcomes, minimal immediate response occurred. Clinical improvement developed gradually over an extended timeframe, suggesting protracted recovery inconsistent with typical antibody-mediated pathophysiology.

Conclusion: This case emphasizes that pediatric transverse myelitis may result from direct infectious spinal cord invasion rather than exclusively post-infectious autoimmune mechanisms, particularly when standard immunotherapy proves ineffective. The child's recovery remained slow, requiring ongoing supportive treatments. Treatment-refractory cases warrant consideration of alternative pathophysiological processes beyond conventional immune-mediated demyelination.





ABSTRACT ID: PP 287

Title	Headache with Neurological Deficits and CSF Lymphocytosis (HaNDL) Syndrome in an 8-Year-Old Boy: A Rare Paediatric Case
Authors	Lelwala Gurugamage Charith Prabhawitha ¹ , Helen Wright ¹ , Snehal Shah ¹ , Peter Shipman ¹
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ABSTRACT

Introduction: Headache with Neurological Deficits and CSF Lymphocytosis (HaNDL) syndrome is a rare, self-limiting condition characterized by episodes of severe headache accompanied by transient neurological deficits and cerebrospinal fluid lymphocytic pleocytosis. This condition is exceptionally rare in the paediatric population, with most cases reported in adults. We present a case of HaNDL syndrome in an 8-year-old boy who initially presented with features suggestive of viral meningitis.

Case Presentation: An 8-year-old previously healthy boy presented with acute onset slurred speech, left upper limb weakness (4/5 power), and left-sided facial drooping associated with worsening headache, nausea, and vomiting. Symptoms developed over 6 hours with intermittent weakness and concurrent left ear pain. Two weeks prior, he was diagnosed with viral meningitis following similar symptoms. Examination revealed altered comprehension, bilateral positive Kernig's sign, left facial asymmetry with partial upper motor neuron facial nerve palsy, and papilledema on fundoscopy. Investigations showed elevated white cell count (19.23), CSF lymphocytic pleocytosis (170 leucocytes, 98% mononuclear cells), normal CSF glucose (3.0mmol/L) and protein (0.43g/L). MRI demonstrated subtle leptomeningeal enhancement without evidence of ADEM. Repeat MRI was normal. Extensive infectious and autoimmune workup was negative. Treatment with intravenous antibiotics, aciclovir, methylprednisolone, and acetazolamide resulted in complete recovery.

Conclusions: This case highlights HaNDL syndrome as an important differential diagnosis in paediatric patients presenting with recurrent headache and focal neurological deficits. Early recognition and appropriate supportive management lead to excellent outcomes in this self-limiting condition.





ABSTRACT ID: PP 288

Title	A Rare Case Of Spinal Epidural Abscess as a Complication of Recurrent Multidrug-Resistant Meningitis
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Affiliations	¹ DGH Ampara, Sri Lanka

ABSTRACT

Introduction: Recurrent bacterial meningitis in children is uncommon and should prompt evaluation for underlying structural abnormalities or persistent infective foci. Spinal epidural abscess is a rare but serious complication that requires early diagnosis and coordinated multidisciplinary management.

Case Report: A 1-year-old boy, born to healthy non-consanguineous parents, was readmitted with recurrent fever and markedly elevated inflammatory markers 20 days after treatment for multidrug-resistant bacterial meningitis. His development was age appropriate, although growth parameters were below expected. He had a background history of colostomy for congenital imperforate anus. On examination, the child was febrile with neck stiffness suggestive of meningitis. Lumbar puncture yielded thick, cream-coloured purulent cerebrospinal fluid with marked neutrophilic predominance, consistent with severe bacterial meningitis. Following this finding, the child was transferred to LRH for further evaluation and neuroimaging. MRI of the whole spine with contrast demonstrated a biloculated posterior epidural rim-enhancing collection extending from L3 to L5, causing compression of the thecal sac, consistent with an epidural abscess. A dorsal dermal sinus tract at the S1 level was identified as a possible infective focus, with no evidence of spinal cord involvement. Following diagnosis, the child was commenced on Meropenem, Vancomycin, Metronidazole, and Colistin after microbiology consultation. Antibiotic therapy was continued for 21 days with clinical improvement. He was subsequently transferred to the NHSL for definitive neurosurgical management.

Discussion: This case emphasizes the need for early imaging and identification of underlying infective sources in recurrent meningitis to prevent delayed diagnosis and improve outcomes.





ABSTRACT ID: PP 289

Title	Transient Abnormal Myelopoiesis in a Neonate with Trisomy 21
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ABSTRACT

Introduction: Transient Abnormal Myelopoiesis (TAM) is a self-limiting myeloproliferative disorder seen in approximately 10% of neonates with Trisomy 21. It is characterised by marked leucocytosis with circulating blast cells and may be associated with anaemia, thrombocytopenia and organ dysfunction. Although TAM usually resolves spontaneously within three months, 20–30% of affected infants later develop acute myeloid leukaemia, particularly those with GATA1 mutations.

Case Presentation: A term neonate was delivered via normal vaginal delivery with a birth weight of 2.7 kg to non-consanguineous parents. The pregnancy was uncomplicated. On day one, the baby was admitted for grunting, and dysmorphic features suggestive of Trisomy 21 were observed.

Initial full blood count revealed leucocytosis of 59,000/mm³, rising to 74,600/mm³ by day ten. There was no hepatosplenomegaly. Peripheral blood film showed numerous blast cells with occasional dysplastic neutrophils. The infant developed symptomatic anaemia requiring red cell transfusion. She was closely monitored for hyperviscosity and cardiac failure. By day 24, the white cell count decreased to 22,190/mm³. Paediatric oncology follow-up was arranged. At two months of age, the white cell count normalised to 7,300/mm³, with only occasional atypical cells on blood film. Continued haematological surveillance was advised.

Conclusion: TAM is a transient but clinically significant condition in neonates with Trisomy 21. Although spontaneous resolution is common, careful monitoring is essential due to the risk of progression to acute myeloid leukaemia.





ABSTRACT ID: PP 290

Title	Retrocaval Ganglioneuroblastoma presenting as Acute Severe Asthma in a 6 year old child
Authors	Kalani Ranathunga ¹ , Mihira Manamperi ¹ , Chaturi Chapa Bandara ¹ , Minidi Pabasari Perera ¹ , Thilini Somaratne ²
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ABSTRACT

Introduction: Ganglioneuroblastomas are transitional tumors of sympathetic nervous system which have intermediate malignant potential between neuroblastomas and ganglioneuromas. Neuroblastic tumours account for approximately 10% of all paediatric population. Here we present a case of a 6-year-old girl who presented with refractory bronchial asthma. Her routine chest x-ray showed a mediastinal mass and subsequently led to the diagnosis of ganglioneuroblastoma.

Case Presentation: She has a background of poor bronchial asthma and presented with acute onset shortness of breath. She was managed as an acute severe episode of bronchial asthma. She showed minimal response to conventional medication including magnesium sulphate. An Urgent chest radiograph was arranged which showed a right sided opacification with a right middle lobe collapse and a tracheal deviation to the right. She was further evaluated with a CT scan of chest which showed a right moderately enhancing retrocaval lesion at the level of adrenal gland with calcification. The biopsy was performed and diagnosed as a ganglioneuroblastoma. She was screened for metastasis with a bone scan, bone marrow aspiration and a 2D echocardiogram. All were found to be normal. She received 4 cycles of chemotherapy followed by surgical excision.

Discussion and Conclusion: Ganglioneuroblastomas are common in children less than 10 years and arise from primitive neuroectodermal cells of the adrenal gland and sympathetic chain. In X-ray, they can be visualized as mediastinal, cervical or retroperitoneal masses. This case report emphasizes the importance of obtaining a chest x-ray in a patient who is not responding to the standard acute asthma management.





ABSTRACT ID: PP 291

Title	Mediastinal Lymphoblastic Lymphoma Presenting as Persistent Pleural Effusion and Empyema in an Adolescent
Authors	Modarage Nadeeka Anuradhi Peiris ¹ , Ann Modaragana ² , Darshika Gunawardana ¹ , Kumudu Weerasekara ¹ , Channa de Silva ¹
Affiliations	¹ Lady Ridgeway Hospital for Children, Sri Lanka ² Colombo North Teaching Hospital, Sri Lanka

ABSTRACT

Introduction: Mediastinal tumours in children often masquerade as common respiratory infections. A failure to respond to standard therapy should prompt early diagnostic imaging to identify alternative underlying pathologies.

Case presentation: A 13-year-6-month-old girl with bronchial asthma presented with a three weeks history of generalised body aches and multiple somatic complaints followed by two days of fever. She reported left-sided neck and shoulder pain, a non-specific headache, a three-months non-productive moist cough, and one-week of pleuritic chest pain. Clinical examination revealed respiratory distress, left side stony dullness with reduced air entry and tracheal deviation to the right.

Chest radiography demonstrated a large left pleural effusion. Blood tests showed neutrophil leucocytosis, CRP 15 mg/L and ESR 62 mm/h. Despite intravenous antibiotics her respiratory distress worsened. Ultrasound-guided pleural aspiration drained 400 mL straw-coloured fluid. Pleural fluid analysis showed >10,000 pus cells, Lactate Dehydrogenase 1,368 U/L and protein 34 g/L. She was therefore managed as complicated pneumonia with empyema.

However, contrast-enhanced CT on day 7 demonstrated a large mediastinal mass (7.5 × 10 × 15 cm) extending from C7 to T5 and reaching the lower thyroid border. Biopsy confirmed lymphoblastic lymphoma, and she was transferred to Apeksha Hospital for definitive oncological management.

Conclusions: Mediastinal malignancy must be considered in children with respiratory symptoms refractory to conventional treatment. Early cross-sectional imaging can prevent diagnostic delay and facilitate timely specialist referral.





ABSTRACT ID: PP 292

Title

A case of Acute Lymphoblastic Leukaemia Presenting as Recurrent Elbow Periarticular Infection with Neutropenia in a Toddler

Authors

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ABSTRACT

Introduction: Acute Lymphoblastic Leukemia (ALL) frequently mimics infectious etiologies, notably, atypical musculoskeletal presentations can significantly delay diagnosis. We describe a toddler presenting with recurrent elbow inflammation and evolving cytopenias, ultimately diagnosed with ALL.

Case presentation: A 3-year-3-month-old male child presented with a two day history of fever, left elbow swelling, and severely restricted joint mobility. Two months prior, he had undergone a right elbow arthrotomy for presumed septic arthritis, and the joint aspirate was sterile with negligible white cell count. Over the preceding three months, the child exhibited significant growth faltering and anorexia, with no history of recurrent infections to suggest underlying immunodeficiency.

On examination he was severely undernourished (weight and height < -3 SD). The left-elbow joint was swollen and mildly warm without erythema, with marked reduction in mobility and tenderness. There was no pallor, lymphadenopathy or organomegaly.

Initial investigations demonstrated a low-normal neutrophil count, normal haemoglobin and platelets, and markedly elevated inflammatory markers (CRP 95 mg/L, ESR 85 mm/h). Ultrasonography indicated periarticular infection without effusion, and an initial blood film suggested a viral process. Following poor clinical response to intravenous antibiotics, serial blood counts revealed persistent neutropenia (absolute neutrophil count $0.12 \times 10^9/L$). Consequently, a bone marrow aspiration performed on day 10 confirmed ALL, prompting transfer to Apeksha hospital for definitive management.

Conclusions: In paediatric patients presenting with apparent septic arthritis, atypical features such as sterile cultures, poor antibiotic response, growth faltering, and evolving cytopenias must prompt early consideration of malignancy and timely bone marrow evaluation.





ABSTRACT ID: PP 293

Title	Lymphoma Presenting as Recurrent Hepatic and Splenic Abscesses in a Paediatric Patient
Authors	Niyumika Ayeshani Nanayakkara Wasam Delpagodage ¹ , Upeksha Liyanage ¹ , Mihiri Peiris ¹ , Timasha de Silva ¹
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ABSTRACT

Introduction: Recurrent fever and organ abscesses in early childhood should prompt consideration of underlying immunological or malignant disorders.

Case presentation: We had a 4-year-old boy with a background history of failure to thrive who initially presented with 7 days of fever and 3 weeks of bilateral cervical lymphadenopathy. Clinical examination revealed hepatosplenomegaly. Abdominal ultrasonography demonstrated multiple hypoechoic lesions in the liver and spleen, contrast-enhanced computed tomography confirmed multiple hepatic and splenic abscesses. Inflammatory markers were markedly elevated, however repeated blood cultures were sterile. Extensive evaluation for infectious aetiologies including melioidosis, tuberculosis, toxoplasmosis, toxocariasis, aspergillosis, Epstein-Barr virus and cytomegalovirus was negative. Bone marrow examination was normal, lymph node biopsy showed reactive lymphadenopathy. Serum immunoglobulin levels and nitro-blue tetrazolium test were normal.

Child was treated with intravenous meropenem for 6 weeks, following which imaging confirmed complete resolution of abscesses. He was discharged on oral ciprofloxacin. Two months later, he re-presented with on month of intermittent fever, initially attributed to recurrent respiratory infections. Examination revealed wasting and hepatosplenomegaly. Investigations demonstrated pancytopenia with lymphocyte predominance. peripheral blood film showed no abnormal cells. Lymphocyte subset analysis revealed reduced counts. Repeat bone marrow biopsy at this stage revealed features consistent with anaplastic lymphoma with lymphohistiocytic variant.

The child was commenced on chemotherapy with oncological management.

Conclusion: This case highlights the diagnostic complexity of paediatric fever with organ abscesses and emphasizes the importance of continued surveillance and re-evaluation, as underlying malignancy may become apparent only later in the disease course.





ABSTRACT ID: PP 294

Title	Persistent Unilateral Ptosis and Non-Resolving Apical Opacity in an Infant: An Atypical Presentation of Thoracic Neuroblastoma
Authors	D.Sachini Kaushalya Weerakkody ¹ , Ann Modaragama ² , Nadeeka Peiris ¹ , Dilumini Dissanayaka ¹ , Shakya Deshapriya ¹ , Channa De Silva ¹ , Kapila Panditha ¹
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ABSTRACT

Introduction: Neuroblastoma is an embryonal tumor of the sympathetic nervous system with marked clinical heterogeneity, ranging from spontaneous regression to aggressive, treatment-resistant disease.

Case: A 1-year-3-month-old girl presented with a one-month history of right-sided neck swelling without respiratory or constitutional symptoms. Initial assessment at a local hospital showed right apical consolidation on chest X-ray. Neck ultrasound revealed multiple enlarged right upper and mid-jugular lymph nodes (largest 1.3 cm). Baseline blood investigations were normal and GeneXpert was negative. Despite antibiotic therapy, radiological changes persisted and she was referred for further evaluation. Notably, she had right-sided ptosis since seven months of age. Growth and development were normal.

Examination revealed multiple matted, non-tender posterior cervical lymph nodes on the right without other lymphadenopathy. Right-sided ptosis was present without miosis, ophthalmoplegia, or facial anhidrosis. Systemic and upper limb neurological examinations were unremarkable. Laboratory investigations, including inflammatory markers and organ function tests, were normal.

Contrast-enhanced CT of the neck, chest, and abdomen demonstrated a 4.1 × 3.9 × 3.9 cm right paraspinal upper thoracic mass with internal calcifications, extending from the root of the neck to the carina, displacing the distal trachea and esophagus, with adjacent spinal canal extension. Multiple right cervical lymph nodes compressed the internal jugular vein. Cervical lymph node biopsy confirmed poorly differentiated neuroblastoma. The child underwent surgical resection followed by chemotherapy.

Conclusion: Persistent unilateral ptosis with non-resolving apical opacity in infancy should prompt evaluation for malignancy. Thoracic neuroblastoma can mimic pneumonia, and early imaging is crucial to avoid diagnostic delay.





ABSTRACT ID: PP 295

Title

Molecular Diagnosis and Targeted Therapy for STRN-ALK Fusion Lymphangiomas

Authors

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ABSTRACT

A 13-year-old girl presented with abdominal pain. A thorough examination revealed the presence of multiple masses throughout the patient's body. Magnetic resonance imaging (MRI) scans revealed multiple areas of bone destruction in the following anatomical regions: the cranium, the cervical spine, the thoracic spine, the lumbar spine, both humeri, the clavicles, the scapulae, and the ribs. Multiple abnormal signals were observed in the liver and spleen. Further investigative procedures, encompassing complete blood count, blood biochemistry, and tumor markers, yielded no substantial anomalies. Concurrently, a cystic mass measuring 5 cm in diameter was identified in the left axilla. Biochemical analysis of the white chylous fluid aspirated from the cyst revealed no abnormalities. The surgical biopsy revealed microscopic histopathology, showing irregularly sized, proliferating lymphatic vessels within the adipose tissue. Immunohistochemistry was utilised to confirm a diagnosis of lymphatic malformation. Molecular testing via next-generation sequencing (NGS) identified an STRN::ALK fusion mutation, which was classified as a somatic mutation devoid of hereditary characteristics. Following a comprehensive diagnosis, targeted therapy with oral crizotinib was initiated. The most recent clinical follow-up has demonstrated favourable outcomes, with effective control of multiple systemic tumours, as confirmed by imaging studies. Generalized Lymphatic Anomaly (GLA) is a rare congenital multisystem disorder that originates in the lymphatic system. This constitutes the first reported case of STRN-ALK fusion lymphangiomas treated with targeted therapy against the ALK gene.





ABSTRACT ID: PP 296

Title	A Rare Case of Griscelli Syndrome Presented with Features of Acute Lymphoblastic Leukeamia
Authors	S.G.A.D.Tharanga ¹ , M V H Warnasooriya ¹ , S B N T L Wijeratna ¹ , W G U M Weliwita ¹
Affiliations	¹ DGH Ampara, Sri Lanka

ABSTRACT

Introduction: Griscelli syndrome is a rare autosomal recessive disorder characterized by partial albinism, immunodeficiency, cytopenias, and an increased risk of hemophagocytic lymphohistiocytosis (HLH). Three subtypes have been identified, of which Griscelli syndrome type 2 is the most severe, associated with recurrent infections and life-threatening immune dysregulation. Here reported a child with Griscelli syndrome type 2 presenting with recurrent infections and neutropenic sepsis.

Case Report: A 3-year-old girl, the first child of healthy consanguineous parents, presented with recurrent upper respiratory tract infections, abdominal distension, and features of partial albinism. There was no significant past history of allergies, blood transfusions, or immunization-related issues. On examination, she had severe pallor, ecchymotic patches, generalized lymphadenopathy, and marked hepatosplenomegaly. Full blood count revealed leukopenia with significant neutropenia and the blood picture showed pancytopenia with predominant neutropenia. Inflammatory markers and liver function tests were elevated. Hair shaft microscopic examination confirmed the diagnosis of Griscelli syndrome while further evaluation with bone marrow biopsy revealed acute lymphoblastic leukemia. The child was subsequently transferred to the Apeksha Hospital, Maharagama, for specialized management.

Discussion: Griscelli syndrome type 2 is a life-threatening condition that may remain undiagnosed due to limited access to genetic testing. Early clinical recognition is crucial, as hematopoietic stem cell transplantation remains the only curative treatment and is most effective when performed before disease progression and severe complications occur.





ABSTRACT ID: PP 297

Title	Neuroblastoma presented with respiratory distress, a case report
Authors	Suseendran Brintha ¹ , Gitanjali Sathiadas ² , Nirubaa Umasankar ²
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ABSTRACT

Introduction: Neuroblastoma is the most common extracranial solid tumor in childhood and the leading malignancy in infants. It arises from neural crest cells of the sympathetic nervous system and most commonly originates in the adrenal glands or paraspinal sympathetic ganglia. Thoracic neuroblastoma may present with respiratory symptoms and radiographic findings that mimic pneumonia, potentially leading to delayed diagnosis. Prognosis varies widely from spontaneous regression to more aggressive forms. Early detection and personalized care improve outcomes.

Case Presentation: A 27-day-old male infant, born after an uncomplicated pregnancy, presented to base hospital with cough, stridor, and tachypnea of one day's duration. Chest radiography showed right upper zone opacification, and he was initially treated for right upper lobe pneumonia. Due to poor response to treatment, baby was transferred to tertiary care hospital for further evaluation. An upper gastrointestinal contrast study revealed oesophageal indentation suggestive of external compression. Contrast-enhanced computed tomography demonstrated a solid mass in the right upper hemithorax measuring 50 × 45 × 30 mm. The mass was surgically excised, and histopathology confirmed poorly differentiated neuroblastoma. Six weeks later, magnetic resonance imaging revealed residual paravertebral tumor with spinal cord compression and liver metastases, although there were no clinical signs of cord compression or liver derangement. The patient underwent chemotherapy, resulting in complete resolution of the residual tumor and metastatic lesions.

Conclusion: Neuroblastoma should be considered in neonates presenting with persistent respiratory symptoms or poorly resolving pneumonia with chest radiographic opacification. Early recognition and appropriate management are essential to improve outcomes.





ABSTRACT ID: PP 298

Title	Recurrent Pneumonia Revealing rare intralobar Pulmonary Sequestration in a Toddler: A Case report
Authors	Sayanthan Shanmugam ¹ , Srisaravanapavananthan Namasivayam ¹ , Ranjithatharsini Mahalingam ¹
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ABSTRACT

Introduction: Pulmonary sequestration is a rare congenital lung malformation characterized by non-functioning lung tissue that lacks communication with the tracheobronchial tree and derives its blood supply from the systemic circulation. It commonly presents with recurrent or non-resolving pneumonia, particularly in early childhood.

Case Presentation: A 1-year and 7-month-old girl, the second child of consanguineous parents, born at term with no perinatal complications, presented with recurrent episodes of pneumonia. At 1 year and 4 months of age, she was first admitted with fever, cough, and respiratory distress. Examination revealed reduced air entry over the left middle and lower lung zones. Laboratory investigations showed leukocytosis ($30.4 \times 10^9/L$), thrombocytosis ($904 \times 10^9/L$), and elevated C-reactive protein (178 mg/L). Chest radiography demonstrated opacification in the left middle and lower zones, and she was treated as left lower lobe pneumonia with broad-spectrum intravenous antibiotics.

Although initial clinical improvement was noted, she required two further admissions within one month for recurrent pneumonia involving the same region, with persistent radiographic changes. Contrast-enhanced CT with CT angiography confirmed intralobar pulmonary sequestration supplied by an aberrant artery arising from the descending thoracic aorta (T9–T10) with pulmonary venous drainage. Surgical management via thoracoscopy, converted to thoracotomy due to dense adhesion, included ligation of the feeding artery and left lobectomy. The child recovered uneventfully.

Conclusion: Pulmonary sequestration should be considered in children with recurrent, localized pneumonia unresponsive to appropriate medical therapy.





ABSTRACT ID: PP 299

Title	Mycoplasma pneumoniae Infection Presenting as Bilateral Parotid Gland Enlargement in a Young Child: A Rare Case Report
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ABSTRACT

Background: Mycoplasma pneumoniae is a common cause of community-acquired pneumonia in children, with a range of extrapulmonary manifestations. Rarely, it presents without respiratory symptoms, and salivary gland enlargement is not well described. We report a rare case of M. pneumoniae infection presenting as prolonged fever and bilateral parotid gland enlargement.

Case report: A 2.5-year-old boy presented with a 7-day history of fever. Systemic review was unremarkable, with no respiratory symptoms. Examination revealed bilateral parotid gland enlargement and mild splenomegaly. Initial investigations showed leukocytosis (WBC 20,000/μL, neutrophil predominance), CRP 35 mg/L, and ESR 17 mm/hr. Intravenous cefuroxime was commenced for presumed bacterial infection. As fever persisted, further investigations—including chest radiograph, lumbar puncture, and echocardiography—were within normal limits. Intravenous cefotaxime and clarithromycin were initiated to cover possible M. pneumoniae and other bacterial pathogens. WBC decreased to 15,000/μL, but fever spikes continued. M. pneumoniae antibody titre was >1:160. After 5 days of clarithromycin without resolution, oral levofloxacin was started, resulting in complete defervescence within 24 hours.

Discussion: This case underscores the need to consider M. pneumoniae infection in children with prolonged fever, even in the absence of respiratory symptoms or typical extrapulmonary features. It also highlights the emerging issue of macrolide-resistant M. pneumoniae, particularly in Asian regions, which may necessitate alternative antimicrobial strategies. Registrar In Paediatrics459





ABSTRACT ID: PP 300

Title	Primary Spontaneous Pneumothorax Secondary to Subpleural Bleb Rupture in a Child with Marfanoid Body Habitus
Authors	Ann Shalika Modaragama ¹ , Nadeeka Peiris ² , Nimesha Jayawardhana ² , Channa DeSilva ² , Rasika Gunapala ²
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ABSTRACT

Introduction: Primary spontaneous pneumothorax is relatively uncommon in children and adolescents and typically occurs in otherwise healthy individuals. It is most commonly attributed to rupture of apical subpleural blebs, leading to air leakage into the pleural space.

Case: A 13-year-old previously healthy boy presented with a two-week history of cough, chest pain and exertional dyspnea for 3 days. There was no significant past medical history. His BMI was 13.6kgm⁻². Increased arm span-to-height ratio (1.03). Reduced upper-to-lower segment ratio (0.8). He had arachnodactyly, with positive wrist and thumb signs. Beighton score was 4.

On examination, respiratory rate was 24 /min, with diminished chest expansion, reduced air entry, decreased vocal fremitus and vocal resonance on left side. His saturation was 99% on air. Other systemic examination were unremarkable. Based on the Revised Ghent Criteria, the systemic score was 6.

Full blood count was normal, with elevated inflammatory markers. Chest X-ray demonstrated a left-sided pneumothorax. HRCT of the chest revealed hydropneumothorax with focal area of subpleural blebs in apex of left lung and multiple areas of atelectasis in left lung extending up to the pleural surface, without broncho pleural fistula. Echocardiography, ophthalmological examination and Gene Xpert were normal.

A Left sided intercostal drainage tube was inserted and the pneumothorax resolved. Subsequently, he underwent left-sided video- assisted thoracoscopic pleurectomy and bullectomy. He remains under further evaluation.

Conclusions: Connective tissue abnormalities predispose to spontaneous pneumothorax due to structural lung weakness and require multidisciplinary follow-up and long-term surveillance, as systemic features may develop over time.





ABSTRACT ID: PP 301

Title	ALK-positive inflammatory myofibroblastic tumour presenting as complete unilateral lung collapse in an adolescent boy
Authors	Wickrama Achchige Inoka Nilmini Warnakula ¹ , Hasitha Liyanarachchi ¹ , Eranga Ganewatte ¹ , Sandini Gunaratne ¹
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ABSTRACT

Introduction: Inflammatory myofibroblastic tumour (IMT) is a rare intermediate-grade neoplasm in children, most commonly affecting the lung. It frequently mimics infection or malignancy, posing significant diagnostic challenges.

Case Presentation: A 13-year-old previously healthy boy presented with one month of fever, weight loss, headache, back pain and anorexia. There was no cough or tuberculosis contact history. Examination revealed emaciation, pallor, fever, finger clubbing and reduced left-sided air entry with stony dullness. Inflammatory markers were markedly elevated (CRP 175 mg/L, ESR 150 mm/hr), with leukocytosis and anaemia. CECT thorax demonstrated a left lung mass causing complete lung collapse with mediastinal and bilateral axillary lymphadenopathy, raising suspicion of lymphoma. Axillary lymph node biopsy and bone marrow examination were reactive. Initial mediastinal biopsy showed chronic inflammation. Repeat tru-cut biopsy revealed spindle cell proliferation in an inflammatory background. Immunohistochemistry demonstrated strong diffuse cytoplasmic ALK positivity and SMA positivity, consistent with ALKrearranged inflammatory myofibroblastic tumour.

Conclusions: IMT should be considered in children presenting with constitutional symptoms and radiological features suggestive of malignancy. ALK immunopositivity is critical for diagnosis and has therapeutic implications. Early multidisciplinary evaluation and adequate tissue sampling are essential to avoid diagnostic delay and guide appropriate management.





ABSTRACT ID: PP 302

Title	Post-pneumonic pulmonary pneumatocele in an infant leading for thoracic surgery
Authors	Deniye Gedara Niluka Indu Karunarathna ¹ , S C Wijesundara ¹ , I H D S Pradeep ² , E M N S Ekanayaka ¹
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ABSTRACT

Introduction: Pneumatocele is a thin-walled, air-filled lung cavities form within the lung interstitium. It commonly seen in paediatric age group and occur as a complication of pneumonia or as a sequela of trauma or mechanical ventilation. Most cases are asymptomatic and resolve with appropriate antibiotic therapy and follow-up, though persistent or complicated cases may require surgical intervention.

Case history: A 1-year-10-month-old girl presented with one week history of high-grade fever, productive cough, and mild respiratory distress. She was tachypnoeic with intercostal recessions and bilateral crepitations. Chest X-ray demonstrated left-sided bronchopneumonia with pneumatocele formation. Despite empirical intravenous antibiotics, there was deterioration of the clinical status of the child and progressive enlargement and persistent collapse consolidations on serial imaging. CECT chest revealed a large left upper lobe pneumatocele causing mediastinal shift, residual left lower lobe consolidation, and a small left apical pneumothorax. In failure of the optimal medical treatment, she underwent left minithoracotomy with segmental lung resection.

Conclusion: Pneumatocele are uncommon but very important complication in paediatric pneumonia which should not miss and are usually managed conservatively. However, the above case implies the importance of serial imaging in monitoring disease progression and guiding timely intervention. Early recognition of failure of conservative management and prompt surgical interventions can be life saving and may prevent further complications like pneumothorax. The case emphasizes the need of individual management strategies and close radiological follow-up in children with complicated pneumonia.





ABSTRACT ID: PP 303

Title	Invasive Aspergillosis in the context of immunocompetence
Authors	Kadithala Mudiyansele Kusalani Chathurika Bandara ¹ , Channa De Silva ¹ , Kosala Karunaratne ¹ , Rukshani Gunaratne ¹
Affiliations	¹ Lady Ridgeway Hospital for Children, Sri Lanka

ABSTRACT

Introduction: Though invasive pulmonary aspergillosis is a common occurrence in immunodeficiency, transplant recipients and those who in chemotherapy medications, it is a rare presentation in immunocompetent patients.

Case Presentation: A four year nine months old, first born male to healthy nonconsanguineous parents, presented with cough, wheezing and difficulty in breathing for three days duration and managed as acute exacerbation of bronchial asthma. Despite the acute management he had persistent lung signs and underwent CT chest which revealed diffusenodules in bilateral lungs. The bronchoscopy revealed normal anatomy and bronchoalveolar lavage Galactomanan level was 8.63(<0.5). He was started on voriconazole for which he had a good response. His immunological investigations were all normal (Flowcytometry, Nitroblue Tetrazolium, Immunoglobulin levels, HIV Ag/Ab).

This patient was delivered at term, weighing 2.82 kg, following an uncomplicated pregnancy, through an obstructed labor necessitated resuscitation. Initially, he was managed for congenital pneumonia. Since two months, he developed recurrent lower respiratory tract infections. At 3 years, he suffered a severe exacerbation of bronchiolitis obliterans, requiring intubation and ventilation and his high-resolution CT chest revealed diffuse nodules and a tree-in-bud pattern, prompting empiric anti-TB therapy despite negative investigations. He improved initially with anti-TB treatment, he continued to have recurrent wheezing episodes requiring short courses of steroids. Subsequently, he was started on hydroxychloroquine and azithromycin for immunomodulation.

Conclusion: This case underscores the importance of considering invasive pulmonary aspergillosis even in immunocompetent children with atypical, recurrent respiratory illness and ensures high quality respiratory samples in identifying the exact pathogen.





ABSTRACT ID: PP 304

Title	Sweet Syndrome with Pulmonary Manifestations – An Extreme Rare Presentation In Childhood
Authors	Kadithala Mudiyanseelage Kusalani Chathurika Bandara ¹ , Anura Jayawardene ¹ , Sriyani Samaraweera ¹ , Channa De Silva ¹ , W.K.S.I.Wanniarachchi ¹
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ABSTRACT

Introduction: Sweet syndrome, or acute febrile neutrophilic dermatosis is a rare inflammatory disorder involves multiple organs, characterized by fever, high inflammatory markers and distinct skin rash. Pulmonary involvement is extremely rare in paediatric population and literature was not found for paediatric patients.

Case report: One year and four months old boy presented with fever, cough and respiratory distress for three days duration with generalized erythematous, plaques like lesions. The skin biopsy revealed neutrophilic infiltrates in the dermis without vasculitis. The diagnosis of Sweet syndrome with pulmonary infiltrates was made and started on oral prednisolone and dapsone. Evaluated for secondary causes (haematological malignancy, Inflammatory bowel disease, Immunodeficiency) and excluded. Genetic studies didn't reveal pathological variants for Sweet syndrome. High resolution computed tomography of chest showed centrilobular nodules in bilateral apical segments.

He was the first product of healthy nonconsanguineous parents with an uncomplicated antenatal period and developed multiple episodes of generalized maculopapular rash with fever and high inflammatory markers. After one year he had multiple exacerbations of pulmonary disease which responded to high dose steroids. He was started on Tocilizumab to control disease activity and alleviate steroid toxicity. Initially he responded, but developed severe sepsis and respiratory failure following subsequent doses of Tocilizumab and succumbed to death at the age of two years and ten months.

Conclusions: Sweet syndrome with pulmonary involvement is extremely rare in paediatric age group with significant mortality and morbidity. Steroids are the mainstay of treatment. Biologics can be used in refractory cases with caution.





ABSTRACT ID: PP 305

Title	Cystic Fibrosis Presenting with Pseudo-Bartter Syndrome and Vitamin K deficiency related Coagulopathy in an Infant
Authors	Kanchana Uyangoda ¹ , Achala Ratnayake ¹ , Uthpalani Wijethunge ¹ , Roshan Senarathne ¹
Affiliations	1 TH Badulla, Sri Lanka

ABSTRACT

Introduction: Cystic fibrosis is increasingly recognized in Sri Lanka, where atypical early presentations may contribute to delayed diagnosis. Pseudo-Bartter syndrome, defined by hypochloremic metabolic alkalosis with hyponatremia and hypokalemia, together with vitamin K deficiency-related coagulopathy, is an uncommon but important initial manifestation of the disease in infancy.

Case Presentation: A three-month-old previously healthy boy presented with a one-week history of recurrent vomiting, fever, and generalized echymotic patches. He was the third child of non-consanguineous parents with two healthy older siblings, and his growth had been appropriate at the time of presentation. Physical examination was unremarkable except for widespread ecchymosis. Laboratory investigations demonstrated hypochloremic metabolic alkalosis (pH 7.50, HCO_3^- 30 mmol/L, serum chloride 77 mmol/L), hyponatremia (127 mmol/L), and hypokalemia (2.4 mmol/L). Urinary electrolytes were markedly low, consistent with extra-renal salt loss. Coagulation studies revealed prolonged PT/INR and APTT, which corrected following intravenous vitamin K and fresh frozen plasma. The urine calcium-creatinine ratio was normal. Radiological evaluation excluded nephrocalcinosis, pyloric stenosis, and intestinal malrotation. Stool microscopy showed numerous fat globules. A sweat chloride concentration of 103 mmol/L confirmed the diagnosis of Cystic fibrosis. Genetic analysis is pending. He was discharged on Na and K supplements, pancreatic enzyme replacement and fat soluble Vitamins.

Conclusion: Pseudo-Bartter syndrome with vitamin K deficiency-related coagulopathy may be the sole presenting manifestation of this condition in early infancy, even without respiratory or obvious gastrointestinal involvement. Maintaining a high index of suspicion is essential to enable timely diagnosis and management in emerging patient populations in Sri Lanka.





ABSTRACT ID: PP 306

Title	Multicentric Carpotarsal Osteolysis Due to MAFB Mutation in a Child Initially Treated as Juvenile Idiopathic Arthritis
Authors	Deepthi Tennakoon ¹ , Jayathri Jagoda ¹ , Vindya Subasingha ¹
Affiliations	¹ Lady Ridgeway Hospital, Sri Lanka

ABSTRACT

Introduction: Multicentric carpotarsal osteolysis (MCTO) is a rare genetic skeletal disorder characterized by progressive osteolysis of the carpal and tarsal bones and frequent early misdiagnosis as juvenile idiopathic arthritis. Pathogenic variants in the MAFB gene are a recognized molecular cause. Early recognition is crucial, as conventional immunomodulatory therapies are typically ineffective, and emerging evidence suggests a potential role for denosumab in disease control.

Case Presentation: We report a 13-year-old girl, one of twins born to healthy nonconsanguineous parents, who developed bilateral wrist swelling with carpal involvement at approximately 3 years of age. She was initially treated as juvenile idiopathic arthritis with methotrexate and other immunomodulatory agents without clinical improvement. Progressive osteolysis subsequently led to marked destruction and loss of the wrist and carpal bones, and she was clinically diagnosed with multicentric carpotarsal osteolysis. Genetic testing confirmed a pathogenic MAFB gene mutation consistent with the diagnosis. She currently presents with bilateral knee pain on movement, tenderness, and joint effusions, with progressive functional limitation. Her parents express significant concern regarding potential loss of ambulation. She is presently receiving bisphosphonate therapy. Recent case reports describe disease stabilization with denosumab in genetically confirmed MCTO, underscoring the importance of molecular diagnosis for therapeutic decision-making.

Conclusion: This case highlights the progressive nature of MCTO, its poor response to immunosuppressive therapy, and the importance of genetic confirmation. Given ongoing functional decline despite bisphosphonate therapy, consideration of denosumab may represent a potential therapeutic option.





ABSTRACT ID: PP 307

Title	Relapse of SLE associated with EBV infection in a patient after CAR-T cell therapy.: a clinical case
Authors	Ping Zeng ¹
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ABSTRACT

We present the case of a 13-year-old boy with refractory systemic lupus erythematosus (SLE) who achieved drug-free remission after antiCD19 CART cell therapy, but subsequently experienced Epstein-Barr virus (EBV) reactivation leading to relapse of SLE and manifestations of chronic active EBV disease (CAEBVD). The temporal association between EBV resurgence and SLE flare suggests that CART-induced immunosuppression may permit EBV reactivation, which in turn triggers the return of autoimmunity. This case highlights the need for vigilant monitoring for opportunistic infections, particularly EBV, after CART therapy for autoimmune diseases, as they may contribute to disease relapse.





ABSTRACT ID: PP 308

Title	Successful Non-operative Management of Grade IV Renal Trauma in a Child with Solitary Functioning Kidney: A Case Report
Authors	Yasara Randoombage ¹ , Harshini Dharmawardane ¹ , S Kasthuri ² , HND Tharangika ¹
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ABSTRACT

Introduction: High-grade renal injuries are managed either operatively or non-operatively depending on haemodynamic stability. In operative intervention, nephrectomy may be unavoidable. In children with solitary kidneys, long-term quality of life depends on successful preservation of kidneys as nephrectomy results in lifelong dependence on renal replacement therapy.

Case Description: A previously healthy 5-year-old presented following fall from a height complaining of severe abdominal pain, one episode of haematuria and anuria for 12 hours. He was hemodynamically stable with haemoglobin 9.6g/dL, estimated glomerular filtration rate (eGFR) of 37ml/min/1.73m². Computed Tomography revealed shattered right solitary kidney, separated into two segments across renal hilum with perinephric and retroperitoneal urinoma.

Urine output was established following aggressive fluid resuscitation (40ml/kg) and frusemide (8mg/kg). Strict input-output monitoring was implemented with supportive therapy.

Anuria recurred after 2 hours despite euvolaemia and diuretics. A JJ stent was inserted to confirm ureteric continuity. Despite this, he remained anuric and developed respiratory distress requiring ventilation, raising suspicion of abdominal compartment syndrome. A percutaneous abdominal drain was inserted with successful drainage, alleviating ventilatory requirements and restoring urine output. Despite nadir eGFR of 15ml/min/1.73m² he was discharged after 25 days with normal creatinine. Ultrasound scan at 6 weeks confirmed viability of kidney and resolution of collections.

Conclusion: Non-operative management is a feasible, kidney-sparing approach in haemodynamically stable children. Successful outcomes depend on vigilant observation, meticulous fluid and electrolyte management, serial laboratory monitoring, and low threshold for intervention should deterioration occur. In this child, adherence to principles resulted in preservation of the kidney.





ABSTRACT ID: PP 309

Title

Congenital diaphragmatic hernia complicated with an obstructed gastric volvulus in a five month old baby

Authors

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ABSTRACT

Introduction: Congenital Diaphragmatic hernia (CDH) is usually detected antenatally or after birth. However, it can go undetected and present later on in life with multiple complications or found as an incidental finding during an acute infection.

Case Presentation: A previously well five-month-old baby presented with a history of fever and shortness of breath for one day duration. On examination there was respiratory distress associated with marked reduced air entry on the left side. X-ray was urgently ordered which showed a Left sided diaphragmatic hernia with a mediastinal shift to the opposite side complicated with a possible gastric volvulus. Baby was kept nil by mouth and transferred to the PICU to be intubated and ventilated following persistent distress. Surgery was performed and an obstructed gastric volvulus was detected. However, no bowel necrosis or lung hypoplasia was noted. Post-operative period was uncomplicated and the child recovered well.

Discussion: CDH needs to be considered as a differential diagnosis regardless of the age in the paediatric population when there are clinical signs and symptoms that can tally with a diagnosis of CDH like marked reduction of air entry in a particular side. The child may present following a trigger like an infection. Any delay in treatment can lead to severe complications. Hence, prompt investigations and the necessary management needs to be done.





ABSTRACT ID: PP 310

Title	Rapunzel Syndrome in a Six-Year-Old Girl: Gastric Trichobezoar Secondary to Trichotillomania Causing Partial Gastric Outlet Obstruction and Intussusception.
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ABSTRACT

Introduction: Trichotillomania is an impulse control disorder characterized by recurrent hair pulling that may progress to trichophagia and trichobezoar formation. When the hair mass extends into the small intestine, it is termed Rapunzel syndrome and can cause gastrointestinal obstruction. Iron deficiency anaemia is frequently associated with pica and may coexist in affected children.

Case Presentation: A six-year-old girl presented with severe abdominal pain and vomiting for one day without fever or bowel or urinary symptoms. One vomitus contained a hair clump. The mother reported hair pulling and pica, including ingestion of hair and toothbrush bristles. Examination revealed diffuse abdominal tenderness with sluggish bowel sounds. Haemoglobin was 10.4 g/dL with microcytic indices, and serum ferritin was 7.6 ng/mL, confirming iron deficiency anaemia. Abdominal radiography showed absence of the gastric air bubble. Ultrasonography demonstrated an echogenic intragastric mass with short segment small bowel intussusception. Gastroscopy revealed a large trichobezoar extending through the pylorus into the proximal duodenum, causing partial gastric outlet obstruction. Complete endoscopic removal was achieved.

Conclusions: Early recognition of trichobezoar in children with abdominal pain, anaemia, and behavioural risk factors is essential. Combined endoscopic and psychiatric management prevents complications and recurrence.





ABSTRACT ID: PP 311

Title	Rare Coexistence of Intestinal Malrotation and Duodenal Windsock Deformity: A Diagnostic Challenge
Authors	Dilshan Wimalasena ¹ , Dilshan Wimalasena ¹ , Lahiru Kularatne ¹ , Nishan Perera ¹ , Kandasamy Sunsaluja ¹ , Parami Kahandawa ¹ , Janath Liyanage ¹ , Kanchana Kumuduni ¹ , Kapilani Withanaarachchi ¹
Affiliations	¹ National Hospital Galle, Sri Lanka

ABSTRACT

Introduction: Windsock deformity of the duodenum is a rare congenital anomaly. When associated with intestinal malrotation, the duodenal web may be easily overlooked, as both conditions present with similar features of obstruction. This overlap makes early diagnosis and appropriate surgical management particularly challenging.

Case Report: A 15-day-old male neonate (34 weeks, 2050g) presented with a history of projectile bilious vomiting and he had gradual gaseous abdominal distension. Initial ultrasound (USS) of the abdomen showed no features of pyloric stenosis. Upper Gastrointestinal (UGI) contrast study showed evidence of partial duodenal obstruction due to possible malrotation. Therefore, Ladd's procedure and Inversion Appendicectomy were performed. During the procedure, a complete non-rotation with multiple Ladd's bands obstructing the duodenum was found. However, bilious vomiting persisted after the surgical intervention. The second UGI contrast study was done on day 34 of life and it showed evidence of obstruction at the distal 2nd part of the duodenum. Hence a laparotomy was done and a few adhesions over the duodenum were seen. There was a duodenal membrane with perforation, which was identified as Windsock Deformity, where a Nasogastric tube cannot be passed through it. The release of the windsock membrane was performed. The baby clinically improved with tolerating feeds and he was discharged home.

Discussion: This case highlights the importance of persistent evaluation in neonates with ongoing bilious vomiting despite initial surgical correction. Dual pathology can coexist, and timely re-exploration with definitive surgical management is crucial to achieve complete resolution and ensure favorable clinical outcomes.





ABSTRACT ID: PP 312

Title	Tracheo-oesophageal fistula type C with absent gas shadow in the abdominal x-rays
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ABSTRACT

Tracheo-esophageal fistula (TEF) is a common congenital anomaly of the respiratory tract. A preterm baby boy was evaluated immediately after birth for absence of gastric bubble on antenatal scan. Subsequent abdominal X-rays showed coiling of the NG tube with no stomach gas shadow, which led to suspicion of esophageal atresia (EA) Type-A. The neonate underwent open gastrostomy on D2 of life. After establishing gastrostomy feeding, he developed neonatal respiratory distress, which prompted an UGI contrast study. This showed the appearance of Type-C TEF with suspected duodenal atresia (DA) due to paucity of abdominal gas. On D5 of life, Type-C TEF repair was performed along with exploratory laparotomy to exclude duodenal atresia. The distal stomach and duodenum were visualised with no evidence of duodenal atresia. To further exclude duodenal atresia, an endoscope and laparoscope were passed through the gastrostomy on D12 and D17 of life and found an intact lumen, with suspicion of a kink at the D1 level or possible gastroparesis, leading to advancement of the NG tube through the duodenum. The neonate was gradually weaned from ventilation and commenced on nasoduodenal bolus feeding. Once full feeding was tolerated, gastrostomy feeding was slowly reestablished, because of cleft palate. He was discharged on D45 of life.

Absence of gastric bubble on antenatal scan and absent or minimal gas-filled gastrointestinal tract on chest radiographs of the neonate will not exclude Type-C TEF. Be mindful to do bronchoscopy and do repeated abdominal x-rays to exclude Type-C TEF and confirm before performing repair of Type-A esophageal atresia.





ABSTRACT ID: PP 313

Title	Grisel's Syndrome: Atlanto-axial subluxation secondary to upper respiratory tract infection
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ABSTRACT

Introduction: Severe upper respiratory tract infection can cause inflammation around the atlanto-axial joint, spreading via the pharyngo-vertebral veins to cervical ligaments, leading to laxity and non-traumatic rotatory subluxation of the joint .

Case report: A four-year-old child presented with right-sided neck pain, swelling, restricted movement without preceding trauma and no fever. Examination revealed right cervical lymphadenopathy with a neck tilt. Rest of the examinations were unremarkable, revealing WBC 20.7 x 10⁹/L, Neutrophil 80.6%, CRP 20.98mg/L and ESR 96 mm/h.

The patient was managed with intravenous co-amoxyclav and oral clindamycin along with analgesics, muscle relaxants and physiotherapy. Neck tilt persisted despite improvement of cervical lymphadenopathy. CT imaging revealed severe atlanto-axial dislocation . The patient made a complete recovery following three days of cervical traction without neurological sequelae. Follow-up imaging showed normalization of the anterior atlanto-axial interval.

Discussion: Grisel's syndrome, a rare inflammatory atlanto-axial instability often triggered by upper respiratory tract infection is confirmed by CT imaging; MRI assesses soft tissue and cord involvement. Management may require surgical reduction if traction fails to avoid long term neurological sequelae. Cervical lymphadenopathy is a common childhood infectious or para infectious illness, yet uncommon complications needs awareness and vigilance.





ABSTRACT ID: PP 314

Title

Artificial Intelligence in the NICU: Moving from Research Tool to Bedside Reality

Authors

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ABSTRACT

Background: Artificial intelligence in neonatal medicine has produced a decade of published predictive models for sepsis, necrotising enterocolitis, apnoea, and neurodevelopmental outcomes, many with strong accuracy metrics. Bedside implementation remains rare. The gap between algorithmic performance and clinical adoption is not primarily a scientific problem. It is a translation problem.

Objectives: To identify the primary barriers preventing validated AI tools from reaching neonatal clinical practice and propose a structured framework for translation.

Methods: Four barriers explain most implementation failures. Most AI models are trained on retrospective datasets that do not reflect real-time signal variability in active NICU environments. Validation studies rarely address workflow integration, how an alert is received, interpreted, and acted upon under the constraints of a high-acuity unit. Interface design is treated as secondary, despite alert fatigue and poor visual hierarchy being established causes of clinician non-compliance.

Results: Regulatory pathways for AI as a medical device remain poorly understood by teams without dedicated product and commercialization expertise. Technically sound models fail not because the science is wrong but because the route from research to clinical practice has not been engineered.

Conclusions: Translating AI into neonatal clinical practice requires clinical rigour in model development and product discipline in equal measure. Neither is sufficient alone. Progress depends on collaboration between clinicians, product architects, and implementation scientists. Though the field has accumulated evidence, it lacks the infrastructure framework to deliver it to the bedside.





ABSTRACT ID: PP 315

Title	Photovoice as a Community Surveillance Tool for Internal Migrant Children: Four-Year Field Evidence from I Light Global, India
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ABSTRACT

Background: Internal migrant children in India constitute one of the most invisible populations. They fall outside school enrolment records and health registers, as families follow labour migration cycles. No longitudinal community surveillance model for this population exists in the literature. Photovoice, a participatory action research methodology used to document lived experience through photography, has been applied at a small scale in some populations but never as a digital surveillance method.

Objectives: The WhatsApp-documented Photovoice surveillance model for internal migrant children across eight cities in India and to assess its potential as a replicable low-resource framework for child welfare monitoring.

Methods: I Light Global, an NGO with four years of continuous field operations, established a network of volunteer-led field centres across eight Indian cities. Each centre has a woman volunteer who opens her home to volunteers and children on a daily basis. Following each session, three to ten photographs documenting educational activity, nutritional provision, and support are shared in a single common WhatsApp group accessible to directors, volunteers, and teachers.

Results: The network has generated numerous photographs across eight cities, representing the largest community-documented longitudinal visual welfare record of internal migrant children. Welfare domains consistently documented photographs on education, nutritional provision, material support, cultural participation, and recreation. The WhatsApp platform functions simultaneously as real-time governance infrastructure also.

Conclusions: This programme represents the first documented application of Photovoice methodology at a multi-city scale using WhatsApp as the longitudinal surveillance infrastructure with internal migrant children. The model is low cost and replicable, requiring no formal training.





ABSTRACT ID: PP 316

Title	A Study of Bone Mineral Density and Bone Health in Children with Classical Homocystinuria
Authors	Uttam Chand Saini ¹ , Inzamam Chaudhary ² , Arushi Gahlot Saini ² , Prahbhjot Malhi ² , Savita Attri ² , Sanjay Bhadada ² , Devidayal ² , Vikas Bhatia ²
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ABSTRACT

Background: This study assessed bone health and predictors of poor bone health in children with classical homocystinuria.

Methods: In this cross-sectional study at a tertiary pediatric neurology unit (January 2022–June 2023), children ≤ 18 years with confirmed classical homocystinuria were included. Poor bone health was defined as history of fracture (excluding major trauma), DEXA Z-score < -2 , or Z-score -1 to -2 with radiographic changes.

Results: Fourteen patients were evaluated (median age 7 years, IQR 6.25–15; range 3–17; male:female 1:1). Median height was 130 cm, weight 27.4 kg, and BMI 15.65 kg/m². Marfanoid features were common: increased arm-span (64.3%), arm/height ratio (64.3%), abnormal US:LS ratio (57.1%). Systemic involvement included ophthalmological (85.7%), musculoskeletal (100%), psychiatric (71.4%), and intellectual (64.3%) impairments. Median homocysteine was 81.8 $\mu\text{mol/L}$, vitamin D 15.2 ng/mL, and alkaline phosphatase 192.5 U/L. Poor bone health affected 64.3% (n=9). Fractures occurred in 21.4% (n=3; one each in rib, femur, tibia). Abnormal DEXA (Z < -2) was seen in femur (42.9%) and lumbar spine (35.7%). Poor bone health was associated with higher arm/height ratio (p=0.01), ophthalmological abnormalities (p=0.05), and psychiatric issues (p=0.03), while higher IQ correlated with better bone health (p=0.003).

Conclusion: Poor bone health is prevalent in nearly two-thirds of children with classical homocystinuria, with pathological fractures in one-fifth. Early recognition and management are critical for better outcomes.





ABSTRACT ID: PP 317

Title	Neonatology
Authors	Juan Liu ¹ , Wei Zhu ¹ , Jia Chen ¹
Affiliations	¹ China

ABSTRACT

Background: Moderate and late preterm infants account for 80% of preterm births, and their subtle brain developmental abnormalities are easily overlooked in clinical practice. Conventional imaging methods such as cranial ultrasound and MRI have limitations in dynamic and bedside monitoring. This study aimed to investigate early brain development in moderate and late preterm infants using resting state and music task functional near infrared spectroscopy (fNIRS).

Methods: A prospective case control study was conducted, including 22 moderate and late preterm infants and 22 healthy term infants at 37–38 weeks of corrected or actual gestational age. fNIRS data were collected during resting and music stimulation conditions. Functional connectivity and hemodynamic responses were analyzed.

Results: Results showed no significant differences in gender, Apgar scores, head circumference, and gestational age at examination between groups. Preterm infants had significantly lower birth gestational age and birth weight. Resting state analysis revealed significantly reduced brain functional connectivity in preterm infants, mainly in the right hemisphere regions associated with language, executive function, and visual processing. During music stimulation, although average signal changes did not differ significantly, preterm infants exhibited flatter hemodynamic responses and weaker neurovascular coupling.

Conclusion: This study demonstrates that moderate and late preterm infants present early impairments in brain functional integration and neurovascular regulation. fNIRS provides a simple, bedside, and objective tool for the early detection of concealed brain developmental abnormalities in this population.





ABSTRACT ID: PP 318

Title	Socio-demographic and Clinical Determinants of Measles-Associated Pneumonia in Children: A Hospital-Based Study
Authors	Mohammad Mahmudul Hasan ¹
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ABSTRACT

Background: Measles continues to be a significant contributor to childhood morbidity and mortality, particularly through secondary complications such as pneumonia.

Objective: To determine the socio-demographic profile, parental educational status, family characteristics, nutritional background, and exposure-related factors associated with measles-associated pneumonia among hospitalized children.

Methods: A hospital-based cross-sectional descriptive study was conducted among 41 children admitted with confirmed measles and clinical evidence of pneumonia. Information regarding residence, family size, parental occupation and income, parental education, breastfeeding practices, immunization history, measles exposure history, and possible source of transmission was collected using a structured questionnaire and analyzed descriptively.

Results: The majority of affected children were from rural areas and most families belonged to lower-middle and low socioeconomic groups. Fathers were commonly employed as farmers, small businessmen, transport workers, or low-income service holders, while mothers were predominantly housewives. Family size generally ranged from 4–8 members. Most parents had educational attainment up to primary or secondary level, with some having no institutional education. Community exposure was identified as the predominant source of measles transmission, whereas a smaller proportion reported family exposure. Several caregivers reported positive contact history, including exposure in healthcare settings, suggesting possible nosocomial transmission. These findings indicate that measles-associated pneumonia occurred more frequently among children from rural settings with lower socioeconomic status, limited parental education, and increased exposure opportunities.

Conclusion: Measles-associated pneumonia among hospitalized children appears strongly associated with rural residence, lower socioeconomic conditions, limited parental educational attainment, and community-based transmission patterns.





ABSTRACT ID: PP 319

Title

Case Report: Diagnostic Findings in a Pediatric Patient with Refractory Seizures

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ABSTRACT

Background: Rasmussen's encephalitis (RE) is a rare, chronic inflammatory neurological disorder that typically affects children. It is characterized by progressive focal seizures, cognitive decline, and unilateral brain atrophy. Early identification is crucial for managing the patient's neurological development and quality of life. This report discusses the clinical findings and MRI characteristics of a 9-month-25-day-old male infant who presented with persistent, treatment-resistant seizures.

Case Presentation: The patient presented with a history of recurrent seizures that were unresponsive to conventional antiepileptic therapy. To rule out metabolic or other common causes of seizures, an extensive diagnostic workup was conducted. Significant investigations, including serum electrolytes, serum calcium, RBS (Random Blood Sugar), and EEG, all yielded normal results. Given the persistent and refractory nature of the seizures, an MRI of the brain was subsequently performed to investigate potential structural abnormalities. The MRI examination revealed significant findings, most notably left-sided hemiatrophy associated with ex-vacuo ventriculomegaly and encephalomalacia. There were marked signal changes in the cortical and subcortical regions of the left hemisphere. The extraventricular CSF spaces appeared widened. Importantly, the internal and external capsules, basal ganglia, and thalamus appeared normal bilaterally. Other structures, including the midbrain, pons, cerebellum, and pituitary gland, were unremarkable.

Conclusion: This case highlights the importance of neuroimaging in the evaluation of infants with persistent, drug-resistant seizures, particularly when initial metabolic and electrophysiological investigations (like serum electrolytes and EEG) are normal. The MRI evidence of unilateral hemiatrophy and encephalomalacia in this infant strongly supports a diagnosis consistent with Rasmussen's encephalitis. Given the complexity and progressive nature of this condition, it is imperative that the patient be under the continuous care of a specialist (pediatric neurologist) to discuss therapeutic strategies to optimize the patient's long-term neurological outcome.

