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ORAL PRESENTATIONS

OP: 01

EFFECTIVENESS OF AEROBIC EXERCISE PROGRAM IN IMPROVING HEALTH RELATED PHYSICAL FITNESS AND QUALITY OF LIFE AMONG STROKE SURVIVORS – A RANDOMISED CONTROLLED STUDY

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Background: Stroke survivors often experience reduced physical fitness, impaired mobility, and diminished quality of life due to muscle weakness, decreased aerobic capacity, and balance deficits. Aerobic exercise has been proposed as an effective intervention to enhance cardiovascular endurance, muscle strength, and functional independence in stroke patients.

Objectives: This study aimed to assess the effectiveness of an aerobic exercise program in improving health-related physical fitness, functional capacity, and quality of life among stroke patients.

Methods: A randomised controlled trial was conducted at University Hospital KDU involving 50 hemiplegic stroke patients aged 18–65 years. Participants were recruited from the outpatient physiotherapy department and randomly allocated to either an intervention group (aerobic exercise combined with standard physiotherapy) or a control group (standard physiotherapy alone) using concealed allocation with sealed opaque envelopes. The study employed a single-blinded design, with both participants and the assessor blinded to group allocation. Pre- and post-intervention assessments were conducted by a blinded physiotherapist, while the intervention was delivered by the principal investigator. The intervention group underwent 80-minute sessions three times per week, consisting of 50 minutes of conventional physiotherapy and 30 minutes of moderate-intensity aerobic exercise, including brisk walking, spot marching, stationary cycling, mini squats, and upper-limb strengthening. Health-related physical fitness components, functional capacity, balance, and quality of life (SF-36) were assessed at baseline and follow-ups. Statistical analyses included paired t-tests and Wilcoxon signed-rank tests.

Results: The intervention group showed significant improvements in cardiorespiratory endurance ($p < 0.001$), muscular strength ($p < 0.01$), and flexibility ($p < 0.05$) compared to the control group. Functional capacity, measured by the 6-Minute Walk Test, improved significantly in the intervention group ($p < 0.001$). Balance, assessed using the Mini-BESTest, also showed notable improvements. The SF-36 scores indicated better quality of life in the intervention group across multiple domains, including physical functioning, role limitations, and emotional well-being.

Conclusions: The findings demonstrate that an aerobic exercise program significantly enhances health-related physical fitness, functional capacity, and quality of life among stroke patients. Incorporating structured aerobic training into rehabilitation programs can promote long-term recovery and independence in stroke survivors.

OP: 02

EPSTEIN-BARR VIRUS SEROPOSITIVITY IN A COHORT OF SRI LANKAN PATIENTS WITH EARLY MULTIPLE SCLEROSIS: PRELIMINARY CASE CONTROL STUDY FROM SOUTH ASIA

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Background: Multiple sclerosis (MS) is an immune-mediated demyelinating disease strongly associated with Epstein–Barr virus (EBV) infection, yet evidence from South Asia is scarce. This study examined EBV seroprevalence and antibody titre levels among Sri Lankan patients with early MS compared with matched controls.

Objectives: To assess EBV seropositivity and anti-viral capsid antigen (VCA) IgG titres in MS patients and their association with disease risk.

Methods: A matched case–control study was conducted at the National Hospital of Sri Lanka, including 55 MS patients and 52 age- and sex-matched controls. Anti-EBV VCA IgG titres were quantified using a validated enzyme-linked immunosorbent assay (ELISA) and categorized as low (22-100 RU/mL), moderate (101-200 RU/mL), or high (>200 RU/mL).

Results: EBV seropositivity was observed in 96.3% of MS cases and 86.5% of controls (Odds Ratio (OR) = 4.12; 95% CI 0.82–20.85; p = 0.09). Participants with high antibody titres (>200 RU/mL) had an 11-fold higher risk of MS (OR = 11.0; 95% CI 2.2-54.7; p = 0.003), showing a significant dose-response trend (p = 0.01).

Conclusions: This is the first study to report EBV antibody prevalence among MS patients in Sri Lanka and only the second from South Asia. Findings suggest a potential causal link between EBV and MS and highlight the need for larger regional investigations.

OP: 03

CLINICAL SPECTRUM OF CENTRAL NERVOUS SYSTEM TUBERCULOSIS AND THE PROGNOSTIC UTILITY OF CEREBRO-SPINAL FLUID PARAMETERS – A RETROSPECTIVE COHORT STUDY

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Background: Central nervous system tuberculosis (CNS-TB) causes significant morbidity and mortality. Identifying patients at risk of complications is vital for early intervention.

Objectives: To describe the clinical spectrum of CNS-TB in Sri Lanka and evaluate the prognostic utility of baseline cerebrospinal fluid (CSF) parameters.

Methods: We retrospectively reviewed patients at a single centre of the National Hospital of Sri **Lanka** (November 2023–December 2025). CNS-TB was diagnosed using the WHO (Marais) criteria. Only patients with baseline CSF reports were included in this study. The primary endpoint was a Composite Adverse Outcome (CAO) of death, symptomatic hydrocephalus, vasculitis-related infarction, or Modified Rankin Scale score >3 at two months. CSF parameters were compared using Mann–Whitney U tests and ROC curves.

Results: Out of 1,146 admissions, 53 patients were managed for CNS-TB. Males comprised 50.9% (n=27), and the 21–30-year age group was most affected (24.5%, n=13). Disseminated TB was present in 16.98% (n=9). Constitutional symptoms were reported by 73.5% (n=39). Presenting symptoms included altered consciousness (47.16%, n=25), focal deficits (32%, n=17), and cranial nerve palsies (13.2%, n=7). CSF analysis showed lymphocytic pleocytosis in 47.2% (n=25) and a glucose ratio <0.5 in 71.7% (n=38). Common complications included symptomatic hydrocephalus (28.3%, n=15) and vasculitis (22.64%, n=12). Mortality was 18.86 % (n=10); 37.73% (n=20) had residual deficits.
Among the patients 69.8% (n=37) met CAO. They had higher CSF protein (102 [IQR 65.2–223.5] vs.
50 [IQR 33.5–127] mg/dL, $p<0.05$), lower CSF-to-serum glucose ratios (0.34 [IQR 0.22–0.34] vs.
0.43 [IQR 0.38–0.72], $p<0.05$), and higher lymphocyte counts (21 [IQR 5–89] vs. 1 [IQR 0–38]/mm³, $p<0.05$). CSF protein and lymphocyte count were the strongest predictors of CAO (AUC = 0.721 and 0.728, respectively).

Conclusions: Elevated baseline CSF protein and lymphocyte count effectively predict adverse outcomes in CNS TB.

OP: 04

EPIDEMIOLOGY OF STROKE IN THE RAGAMA MOH AREA: PRELIMINARY DATA FROM A COMMUNITY SURVEY

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Background and Objectives: Community-based epidemiological data on stroke is scarce from Sri Lanka, and no data is available on stroke incidence. We aimed to study the incidence and prevalence of stroke in a semi-urban Sri Lankan community.

Methods: We conducted a door-to-door survey in the Ragama administrative area, covering 17,813 households and 56,358 residents across all 21 Grama Niladhari divisions. Trained medical officers collected household demographic information, and details regarding stroke patients. New stroke events between 15 November 2023-14 November 2025 were considered incident cases.

Results: 375 individuals with stroke were identified [mean (SD) age 67.0 (10.3) years; 60.3% males; 70.2% ischaemic strokes]. 69 (18.6%) had recurrent events. Point prevalence of stroke was 665 per 100,000 population. Prevalence was higher in men (839 vs. 507/100,000), and increased with age (<65 years- 275/100,000; ≥65 years- 2675/100,000).
During the 2-year observation period, 159 new stroke events were recorded; 120 (75.5%) first-ever-in-a-lifetime strokes (FELS) [mean (SD) age 64.1 (11.9) years; 61% males; 73.9% ischaemic strokes]. Annual incidence rate of FELS was 107.2 per 100,000 population (95% CI: 88.9–128.1). Sex-specific incidence was higher in men (135 vs. 82/100,000/year). Incidence increased with age- <65y- 75/100,000/year; ≥65y- 482/100,000/year). Hypertension (56.2%), diabetes (38%), dyslipidaemia (30.6%), heart disease (15.7%), alcohol use (43.8%) and smoking (35.5%) were the most prominent risk factors.

Conclusions: We present the first stroke incidence data in a Sri Lankan community. Our findings highlight the substantial burden of stroke, and the need for strengthened primary and secondary prevention strategies, targeted community interventions, and improved long-term stroke care services.

OP: 05

A MULTICENTER RETROSPECTIVE DESCRIPTIVE STUDY ON NEONATAL HYPOGLYCEMIA BRAIN INJURY RELATED EPILEPSY (NHBI-RE): IS IT AN UNPRONOUNCED EPILEPSY SYNDROME?

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Background: Neonatal hypoglycemia is a common yet preventable metabolic disturbance which can lead to neuro-glucopenia and irreversible brain injury with long-term neurological sequelae. The burden of neonatal hypoglycaemia brain injury (NHBI) extends beyond the affected child, influencing families as well as national healthcare expenditure.

Objectives: The general objective is to explore the relationship between neonatal hypoglycemia, Cortical Visual Impairment (CVI), and occipital epilepsy. Specific objectives include describing risk factors for neonatal hypoglycemia, identifying treatment gaps and cases of undocumented neonatal hypoglycemia presenting later with neurological sequelae, characterizing magnetic resonance imaging (MRI) findings; and describing associated psychosocial comorbidities.

Methods: A multicenter retrospective descriptive study conducted in tertiary hospitals in Sri Lanka. Children presenting with CVI and/or occipital epilepsy, with documented or strongly suggestive histories of neonatal hypoglycemia were included. Data was extracted from clinic records, supplemented by interviews. Objective assessments including visual evaluations, electroencephalogram (EEG), and MRI were reviewed by investigators. Statistical analysis was performed using SPSS.

Results: 56 children were studied within a mean age of 11.2 years, standard deviation being 4.17. 87.5% had documented hypoglycemia while 12.5% were undocumented and 94.6% were clinically symptomatic. Primi mothers (60.7%) posed as a significant maternal risk factor, while 12.5% had maternal diabetes. 100% studied had CVI where 96.4% were at Roman Lantzy Phase II or higher. 71.4% were observed to have focal epilepsy with 67.9% having focal inter-ictal discharges in EEGs

mostly localizing to the occipital-temporal regions. MRI changes were most prominently seen in the posterior brain, gliosis being the most prominently seen pathology (64.3%).

Conclusions: NHBI related epilepsy presents with the triad of neonatal hypoglycemia, CVI and occipital epilepsy, a combination which multicenter studies may group into an epilepsy syndrome.

POSTER PRESENTATIONS RESEARCH

PPR: 01

PILOT TESTING A NEUROPSYCHOLOGICAL TEST-BATTERY FOR PRESURGICAL EVALUATION OF SINHALA-SPEAKING CHILDREN AND ADOLESCENTS WITH DRUG-RESISTANT EPILEPSY

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Background and Objectives: Neuropsychological evaluation is essential in epilepsy pre-surgical evaluation. This study pilot tested a novel neuropsychological test-battery for Sinhala-speaking children and adolescents.

Methods: Tests measuring verbal intelligence (conceptual-reasoning), non-verbal intelligence (block-design), executive functions (progressive-planning test), motor ability (grooved-pegboard), memory (Rey-Osterrieth complex figure (ROCF) recall, non-word recall, consonant-span, visual-span), language (sentence-repetition) and visuo-spatial abilities (ROCF copy) were administered on 6 to 17 years-old, 60 neurotypical children from Gampaha district and 15 children with Drug Resistant Epilepsy (DRE) awaiting epilepsy-surgery, at the National Epilepsy Centre of Sri Lanka.

Results: Neurotypical sample was stratified as 6-9, 10-13, and 14-17 years. Kruskal-Wallis and Welch-ANOVA tests showed significant performance improvements across three age groups for the conceptual-reasoning $H(2)=22.031$, $p<.001$, progressive-planning $F(2, 31.879) =6.409$, $p<.005$ and grooved pegboard-non-dominant hand $F(2, 36.398) =11.663$, $p< .001$, whereas improvements were observed between 6-9 and 10-13-year groups for ROCF-copy and recall , grooved pegboard-dominant hand, block-design, sentence-repetition and consonant-span.
Independent sample t-tests and Mann-Whitney U-tests compared the DRE sample with 15 age and gender matched neurotypical peers. Results indicated significant differences for block-design $t(28) =-5.249$, $p<.001$, progressive planning $t(28) =-2.550$, $p=.017$, grooved pegboard-dominant $t(28) =2.880$, $p=.004$ and non-dominant hand $t(28) =1.948$, $p=.031$, ROCF copy $t(20.52) =-3.972$, $p<.001$ and recall $t(28) =-5.092$, $p<.001$, non-word learning $U =37.5$, $p<.001$ and recognition $U =37$, $p=.002$, sentence-repetition $U =33$, $p=.001$, conceptual-reasoning $U =42$, $p=.003$ and visual-span $U =31$, $p<.001$.

Conclusions: Significant age-related performance improvements reflected sensitivity of the test-battery to neural maturation. Ability to discriminate DRE from neurotypical peers suggests effective identification of cognitive processes compromised by DRE. Inclusion of verbal and non-verbal subtests highlights its potential for detecting lateralised deficits.

PPR: 02

A STUDY ON COGNITIVE IMPAIRMENT AND QUALITY OF LIFE IN PATIENTS WITH EPILEPSY ATTENDING AN EPILEPSY CLINIC IN A TERTIARY CARE HOSPITAL IN SRI LANKA

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Background: Cognitive impairment is a well-recognised complication of epilepsy, adversely affecting patients' daily functioning and quality of life. Multiple factors including demographic characteristics, seizure type, and

electroencephalogram (EEG) abnormalities have been implicated, yet Sri Lankan data remain limited.

Objectives: To determine the prevalence of cognitive impairment, identify associated factors, and examine its relationship with quality of life among adult patients with epilepsy attending a tertiary-care hospital in Sri Lanka.

Methods: A cross-sectional study was carried out over one year at the Epilepsy Clinic of the National Hospital of Sri Lanka, Colombo. A total of 377 adult patients with epilepsy were selected using systematic random sampling after obtaining informed consent. Every second patient listed in the clinic register who fulfilled the inclusion criteria was recruited into the study. Cognitive function was assessed using the interviewer-administered Addenbrooke's Cognitive Assessment–III, and quality of life was evaluated using the self- administered EQ-5D-3L questionnaire. Associations between cognitive performance and demographic, clinical, and investigative variables were analysed using appropriate statistical methods.

Results: Of the 377 participants, 52.5% were male, with a mean age of 40 years. Generalised tonic–clonic seizures were the most common seizure type (48.3%). Cognitive impairment was identified in 70.6% of patients. Participants aged 40 years or above demonstrated significantly greater cognitive decline ($p < 0.05$). Male patients had lower mean cognitive scores compared with females ($p < 0.05$). EEG abnormalities and antiepileptic polytherapy were both significantly associated with poorer cognitive performance ($p < 0.05$). Despite this, the median quality-of-life score was 80% according to the EQ-5D-3L visual analogue scale.

Conclusions: Cognitive impairment is highly prevalent among adults with epilepsy and is influenced by age, sex, EEG abnormalities, and treatment characteristics. These findings highlight the need for routine cognitive screening and integrated multidisciplinary management to optimise neurological outcomes and enhance quality of life.

PPR: 03

NEURO-SIGNAL MICROSTATE EMBEDDINGS USING A TINY TRANSFORMER MODEL FOR LIGHTWEIGHT EEG TEMPORAL DYNAMICS ANALYSIS

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Background and Objectives: Conventional electroencephalogram (EEG) microstate analysis quantifies only static properties such as duration and occurrence, overlooking the temporal transition structure that may contain richer neurodynamic information. This study aims to design a lightweight computational model capable of learning microstate transition patterns using a compact transformer architecture, and to evaluate whether the resulting embeddings offer improved temporal representation compared with conventional summaries.

Methods: Fourteen-channel EEG recordings from a consumer neuroheadset were preprocessed, normalised, and segmented into approximately 200-ms windows (25 samples at 128 Hz). Each window was transformed into a representative topographic vector and clustered into four canonical microstates (A–D) using k-means, forming a symbolic sequence of neural states. A compact two-layer transformer encoder (under 30k parameters) was trained using a next-state prediction objective to learn the underlying transition structure. The CLS token embedding served as a 32-dimensional representation of global neurodynamic flow. Low-dimensional structure in the embeddings was examined using t-SNE projection. No clinical interpretation or diagnostic inference was performed.

Results: The model achieved stable convergence from an initial loss of 1.25 to 0.07, indicating successful learning of microstate transition dependencies. The resulting neurodynamic embeddings exhibited coherent clustering patterns under t-SNE visualisation, suggesting that the compact attention-based model captured meaningful temporal regularities in the microstate sequence. The approach required minimal computational resources, demonstrating suitability for real-time or embedded EEG systems.

Conclusions: A tiny transformer model can effectively encode EEG microstate transition dynamics into a compact neurodynamic embedding, providing richer temporal characterisation than static microstate summaries alone. This lightweight approach may support future applications in neuroadaptive interfaces, cognitive-state monitoring, and portable brain-signal analytics. The work is computational in nature, carries no clinical claims, and is presented solely to demonstrate methodological feasibility.

PPR: 04

QUALITY OF LIFE, SELF STIGMA, AND ASSOCIATED FACTORS IN PATIENTS WITH EPILEPSY IN COLOMBO, SRI LANKA

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Background: Epilepsy, being the second most burdensome neurological condition globally, affects the quality of life (QoL) of persons with epilepsy (PwE) significantly. Although studies worldwide have looked at the QoL in epilepsy, the literature on self stigma in epilepsy and studies in the Sri Lankan context remain scarce.

Objectives: To describe quality of life in PwE and to assess the associations between QoL and various sociodemographic, clinical factors, and self-stigma.

Methods: A cross-sectional study was conducted among 120 PwE attending epilepsy clinics at two tertiary level hospitals. National Hospital of Sri Lanka and Colombo South Teaching Hospital using consecutive sampling. QoL was assessed using the interviewer administered Quality of Life in Epilepsy-10 (QOLIE-10) questionnaire and self-stigma by the Epilepsy Self Stigma Scale (ESSS). A higher score on the QOLIE-10 corresponds to a poorer QoL, while a higher score on the ESSS implies higher levels of self-stigma. QoL was classified into good and poor QoL using a cut-off of 25. The associations were assessed using the Chi-square test and Spearman correlation test.

Results: The sample had an equal distribution of males and females (50%), with a mean age of 46.9 years (SD=14.5). 30.8% of the population reported poor QoL, with the median score for QOLIE 10 (range: 10-51) being 22 (IQR=10) and median score for the ESSS (range: 8-32) being 16 (IQR=8). The Spearman ρ for correlation between QoL and self-stigma was 0.365 ($p<0.01$), indicating that a higher level of self-stigma was associated with a poorer QoL. Higher seizure frequency was also associated with poorer QoL [$\chi 2(1,N=120)=7.987$, $p<0.01$]. Other factors such as sex, marital status, education level, employment, and income level failed to show significant associations with QoL.

Conclusions: In addition to the control of seizure frequency, holistic management of epilepsy should address the self-stigma of patients, at an individual and population level.

PPR:05

EARLY INTERVENTIONS FOR CHILDREN WITH EPILEPTIC ENCEPHALOPATHIES: A SYSTEMATIC REVIEW

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Background: Epileptic encephalopathies are characterized by refractory seizures and progressive neurodevelopmental impairment. Early non-pharmacological interventions such as neuromodulation and dietary therapies are increasingly explored as adjunctive strategies to improve 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, searching PubMed/Medline, ScienceDirect, Scopus, and Google Scholar up to November 2025. Data was manually extracted to identify intervention types and reported outcomes. Risk of bias was assessed from RoB 2.0 and ROBINS-1.

Results: Nineteen studies were included (5 randomised controlled trials, 11 cohort studies, 2 case series, and 1 blinded crossover trial). Vagal nerve stimulation (VNS) for Lennox- Gastaut Syndrome (LGS): three out of seven cohort studies reported sustained benefit, while two small studies showed none. High-pulse-amplitude VNS outperformed high-duty-cycle stimulation in young children with LGS, Infantile epileptic spasm Syndrome (IESS), and Dravet syndrome. VNS combination with deep brain

stimulation (DBS) offered no added benefit. Eight studies evaluated ketogenic therapies. The ketogenic diet (KD) reduced seizures in LGS, Doose syndrome, GLUT-1 deficiency, and served as an effective second-line treatment for IESS but showed no benefit in Landau–Kleffner syndrome or mitochondrial cytopathies. The modified Atkins diet (MAD) and cannabidiol produced inconsistent or minimal improvement.

Conclusions: Early non-pharmacological treatments for epileptic encephalopathies show mixed results. KD is the most consistently effective, particularly in GLUT-1 deficiency, Doose syndrome, and IESS. VNS provides variable benefit, mainly limited to some LGS cases. VNS with added DBS offers no benefit. Stronger RCTs are needed to assess non-pharmacological effectiveness.

PPR: 06

KNOWLEDGE, ATTITUDES, AND PRACTICES ON EPILEPSY IN CHILDREN, AMONG PRIMARY SCHOOL TEACHERS IN THE BALANGODA EDUCATIONAL ZONE, SRI LANKA.

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Background: Epilepsy is a common neurological condition in childhood, and seizures may occur unexpectedly in school settings. Teachers therefore play a crucial role in ensuring the safety and inclusion of children with epilepsy. However, inadequate preparedness can lead to inappropriate seizure management and reinforce stigma.

Objectives: To assess the knowledge, attitudes, and practices of primary school teachers regarding childhood epilepsy and immediate seizure management, identify associated factors, and assess existing misconceptions.

Methods: A community-based cross-sectional, descriptive study with an analytical component was conducted among 133 primary school teachers in the Balangoda Educational Zone, selected using single-stage cluster sampling. Data were collected using a self-administered questionnaire assessing socio-demographic characteristics, knowledge, attitudes, and practices related to epilepsy and immediate management of seizure. Data were analyzed using SPSS software employing chi-square and Fisher's exact tests.

Results: Although almost all participants (98.5%) had heard of epilepsy, only 6.1% had received formal training. Adequate knowledge and positive attitudes were observed in 65.2% and 69.7% of teachers, respectively. In contrast, only 34.1% demonstrated adequate practical knowledge of immediate seizure management. Misconceptions were common, including inserting objects into the mouth during seizures, giving an iron rod to hold, and offering water immediately after a seizure. Educational level showed a significant association only with attitudes ($p < 0.05$), while no significant associations were found between knowledge, attitudes, or practices and age, gender, or teaching experience.

Conclusions: Primary school teachers demonstrated generally acceptable knowledge and favorable attitudes toward childhood epilepsy; however, practical readiness to manage seizures was markedly inadequate with a considerable prevalence of misconceptions. Structured and regular in-service training on epilepsy and seizure first aid, integration of epilepsy education into pre-service teacher training curricula, collaboration between education and health authorities, and school-level policies promoting inclusion, emergency preparedness, and stigma reduction are strongly recommended.

PPR: 07

PARENT-REPORTED EXPERIENCE AND SATISFACTION FOLLOWING PAEDIATRIC EPILEPSY SURGERY AT THE NATIONAL EPILEPSY CENTRE OF SRI LANKA

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Background: Paediatric epilepsy surgery aims to achieve seizure freedom and improve quality of life. The Parent-Reported Experience and Satisfaction Questionnaire (PESS-Q) was developed to measure post-surgical parental satisfaction across four domains: Clinical Outcome, Child Quality of Life

(QOL), Family Impact, and Process/Decision. The questionnaire uses a 5-point Likert scale.

Objectives: To assess and categorise parental satisfaction in a cohort of paediatric epilepsy surgery patients using the PESS-Q and identify the main drivers of satisfaction or dissatisfaction by analyzing the domain scores.

Methods: The PESS-Q was administered to a potential cohort of 50 patients, with N=44 parents completing the survey (88% response rate). The total PESS score was used to categorise the cohort into three a priori defined groups: Good Satisfaction (>4.0), Moderate Satisfaction (3.0-3.9), and Unsatisfied (< 3.0). Mean scores for the four PESS-Q domains were calculated for each cluster.

Results: The overall mean PESS score was 4.17 ± 0.70. The majority of the cohort (77.3%, n=34) reported Good Satisfaction (mean score 4.49 ± 0.28). The Unsatisfied group (n=5) reported the lowest scores in Child QOL (mean = 2.25) and Family Impact (mean = 2.30), indicating that residual symptoms and family burden are primary sources of dissatisfaction. Critically, the Process/Regret Score (reflecting decision confidence) consistently recorded the highest relative score within its cluster, even for the Unsatisfied group (mean = 3.25), suggesting confidence in the care process despite poor outcomes.

Conclusions: Parental satisfaction following paediatric epilepsy surgery is generally high. Dissatisfaction is primarily driven by poor clinical and quality-of-life outcomes, rather than a lack of confidence in the surgical decision-making process. Future efforts should focus on minimising residual symptoms and supporting family impact to enhance overall satisfaction.

PPR: 08

MULTIMODAL PARADIGM COMBINING VOXEL-BASED MORPHOMETRY AND INTERICTAL EEG FOR LATERALIZATION OF LESIONAL BILATERAL OCCIPITAL EPILEPSY IN A PAEDIATRIC COHORT: A PILOT STUDY FROM THE NATIONAL EPILEPSY CENTRE OF SRI LANKA.

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Background: Accurate lateralisation of the epileptogenic zone remains a significant challenge in paediatric patients with drug-resistant bilateral occipital lobe epilepsy (OLE). Standard diagnostic modalities (magnetic resonance imaging (MRI) and electroencephalogram (EEG)) often lack a standardized integration method for determining the predominant epileptic hemisphere. This study develops a quantitative, repeatable multimodal analysis pipeline to overcome the spatial limitations of EEG and the subtlety of structural changes in OLE.

Objectives: The aim of this research was to develop a multimodal analytical paradigm that integrates Voxel-Based Morphometry (VBM) of MRI with the Spike Wave Index (SWI) of interictal EEG to improve the lateralization of epileptogenic regions in pediatric bilateral occipital epilepsy.

Methods: A retrospective study was conducted on a sample of twelve participants: six paediatric patients with bilateral OLE and six age and sex-matched healthy controls. The methodology involved two parallel pipelines. The structural pipeline used SPM12/CAT12 to preprocess T1-weighted MRI and extract regional gray matter volumes from a combined occipital, posterior temporal, and parietal ROI using the AAL3 atlas. A VBM Index, quantifying structural asymmetry relative to controls, was calculated. The functional pipeline used the EEGLAB toolbox to preprocess interictal scalp EEG recordings, with the hemispheric epileptiform burden quantified using the Spike-Wave-Index (SWI), defined as the ratio of left and right spike rates (LSR/RSR).

Results: VBM analysis yielded a mean VBM Index of 1.07097, indicating structural asymmetry favoring Right Lateralization (left hemisphere volume reduction). VBM abnormality maps confirmed more extensive Left Hemisphere abnormalities (Max T-value: 29.03 vs. Right Max T-value: 14.14). Critically, SWI lateralization concurred with the structural VBM index asymmetry in five out of six patients.

Conclusions: This multimodal pilot-paradigm provides a quantitative framework integrating VBM and SWI for lateralization. The high concordance offers a powerful, standardized, non-invasive biomarker that increases localization confidence, supporting targeted surgical planning or high-resolution imaging in pediatric bilateral OLE.

PPR: 09

ASSESSING DEVELOPMENTAL LANGUAGE DISORDERS IN TAMIL-SPEAKING CHILDREN: VALIDATION OF TWO COGNITIVE-LINGUISTIC TESTS

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Background: Developmental Language Disorder (DLD) is increasingly recognised as a neurocognitive condition involving deficits in phonological and syntactic processing. Nonword Repetition (NWRT) and Sentence Repetition Tasks (SRT) serve as sensitive behavioural markers of these underlying processes. However, no validated tools currently exist for Tamil-speaking children, limiting reliable diagnosis in clinical and educational settings.

Objectives: This study aimed to develop and validate two linguistically grounded assessment tools: the Tamil NWRT and SRT, and to examine their psychometric properties, including construct validity, diagnostic accuracy, and test–retest reliability, in differentiating children with and without DLD.

Methods: Test Development: A 40-item NWRT (2–5 syllables) and a 15-item SRT were constructed following Tamil phonotactic and prosodic rules, reviewed by linguists, and pilot-tested for clarity and cultural appropriateness.
Validation: A cross-sectional study was conducted with 190 Tamil-speaking children aged 6–10 years from the Hatton Zone, Nuwara Eliya. Both tests were administered alongside measures of nonverbal reasoning and academic performance. Statistical analyses included Rasch modelling, ROC analysis, factor analysis, and test–retest procedures to establish psychometric robustness.

Results: Both NWRT and SRT scores showed age-related improvement. Rasch modelling confirmed item homogeneity, though the longest items were insufficiently challenging for older children. NWRT demonstrated excellent diagnostic accuracy (AUC = .91), while SRT showed moderate discrimination (AUC = .78). Test–retest reliability was high for both (ICC = .875 for NWRT; ICC = .950 for SRT, $p < .001$). Factor analysis revealed overlapping but distinct cognitive components underlying phonological memory and syntactic processing.

Conclusions: The Tamil NWRT and SRT are valid, reliable, and neurologically informative tools for assessing phonological working memory and sentence processing in Tamil-speaking children. NWRT appears more suitable for younger children (approximately ages 4–6), whereas SRT is more appropriate for assessing older children (around age 11 and above). Together, these tools provide a neurolinguistically grounded framework for early detection and intervention in DLD within South Asian contexts.

PPR: 10

DEVELOPMENT AND VALIDATION OF A VERBAL FLUENCY TEST IN TAMIL TO AID IN DIAGNOSING OLDER ADULTS WITH MILD COGNITIVE IMPAIRMENT (MCI)

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Background and Objectives: Verbal fluency tasks (VFT), specifically Letter and Category fluency, are core components of neuropsychological assessment due to their sensitivity to cognitive impairment. These tasks, which involve timed word generation based on letter or category cues respectively, show differential performance patterns in neurological illnesses, such as dementia. This study aimed to develop and validate a culturally appropriate verbal fluency scale for Tamil-speaking older adults, compare the discriminant validity of letter and category fluency for mild-to-moderate cognitive impairment, and examine the effects of age, gender, and education on task performance.

Methods: This study employed a two-phase, cross-sectional design to develop and validate Tamil VFT. Phase one established normative data from 93 cognitively healthy Tamil-speaking adults aged 50–85. Phase two validated the tasks in 32 individuals with mild-to-moderate cognitive impairment, identified using the MoCA and Brief Dementia Screener. Participants, purposely sampled from the Colombo district, had at least four years of education. Task development addressed the unique linguistic challenges of Tamil's alphasyllabic orthography by using two vowels (with differing vowel lengths) and two consonants. Phonemic and semantic fluency were

assessed through one-minute word-generation tasks across four phonemic and four semantic categories.

Results: Data were analysed using Generalized Linear Mixed Models (GLMM) and Receiver Operating Characteristic (ROC) analyses. In the normative sample, significant fluency-type effects and a gender–fluency interaction indicating female superiority were observed. The effect of age was modest, while education was not significant after controlling for other variables. The mild cognitive impairment (MCI) group performed significantly worse with diminished semantic advantage. ROC analyses demonstrated excellent discriminatory power for both letter and category fluency tasks.

Conclusions: The Tamil VFT is a reliable, culturally valid tool for distinguishing healthy ageing from MCI. Despite Tamil's alphasyllabic orthography, observed performance patterns aligned with alphabetic languages, reinforcing the test's clinical relevance. The MCI group's greater decline in semantic fluency compared to phonemic fluency supports the widely reported degradation of semantic networks in MCI.

PPR: 11

DOMAIN-SPECIFIC QUALITY OF LIFE OUTCOMES AND FUNCTIONAL DETERMINANTS AMONG CHILDREN WITH CEREBRAL PALSY: EXPERIENCE FROM A TERTIARY HOSPITAL IN SRI LANKA

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Background and Objectives: Children with cerebral palsy (CP) face a broad range of functional limitations beyond pure motor impairment. Although quality of life is increasingly recognized as a key outcome in CP, most studies have relied on overall quality of life scores that may mask some domain- specific vulnerabilities. Evidence from Sri Lanka remains limited, especially regarding age and function-specific determinants of quality of life in a peripheral setting. The study characterised domain-specific quality of life profiles among children with CP and examined the functional, clinical, and socioeconomic determinants of these domains.

Methods: An analytical cross-sectional study of children aged 2–18 years with CP attending Teaching Hospital Kurunegala was undertaken. Quality of life (QoL) was measured using the caregiver- reported Paediatric Quality of Life Inventory (PedsQL) CP module. Domain-specific and overall QoL were compared with age, Gross Motor Function Classification System (GMFCS) level, topography, comorbidities, and socioeconomic factors using non-parametric tests.

Results: 223 children were analysed. Participation- and function-related QoL domains were more impaired than symptom-based domains, with lower median scores for daily activities, school activities, and movement and balance. Increasing GMFCS level was strongly associated with poorer QoL across most domains ($p < 0.001$); Each GMFCS level increase independently reduced total QoL by 13.96 points (95% Confidence Interval −16.64 to −11.27; $p < 0.001$). Quadriplegic involvement showed the lowest QoL distributions across domains. The presence of epilepsy, cognitive impairment, hearing and visual impairment was associated with significantly poorer total QoL (all $p < 0.001$), whereas autism spectrum disorder was not associated with total QoL. Household income demonstrated selective associations with participation-related domains.

Conclusions: The QoL among children with cerebral palsy is heterogeneous and domain-specific. Functional severity and comorbidity profiles exert a greater influence than symptom-based domains alone. Domain-level assessment provides clinically meaningful insights into informing appropriate, function-focused care and service prioritisation in resource-limited settings.

PPR: 12

ASSESSING THE COMPETENCE-CONFIDENCE GAP IN CVI CASE IDENTIFICATION: A MULTI-DISTRICT STUDY AMONG PUBLIC HEALTH MIDWIVES IN SRI LANKA

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Background: Cortical Visual Impairment (CVI) is a leading cause of visual impairment in children, resulting from damage to the visual pathways in the brain rather than the eyes themselves. In Sri Lanka, Public Health Midwives (PHMs) are crucial in early detection through primary care surveillance. However, the foundational knowledge base among PHMs regarding CVI aetiology, signs, and referral pathways is often unknown. This study aimed to assess the baseline theoretical knowledge of CVI among PHMs across multiple districts in Sri Lanka prior to a targeted intervention.

Objectives: The primary objectives were to determine the mean factual knowledge score of PHMs concerning CVI, assess the internal consistency of the knowledge assessment tool, and identify demographic and self-reported confidence predictors (such as service experience and prior exposure) that influence knowledge scores.

Methods: A cross-sectional study was conducted among 337 PHMs. Theoretical knowledge was measured using a 10-item factual survey (Total Score). Data analysis included Cronbach's Alpha (alpha) to determine internal reliability, One-Way ANOVA to compare mean scores across service experience groups, and Multiple Linear Regression (MLR) to determine independent predictors of the Total Score.

Results: The assessment tool demonstrated good internal consistency (alpha = 0.795). The overall mean Total Score was 3.47 (SD ± 2.05), indicating low baseline knowledge. One-Way ANOVA showed no significant difference in knowledge scores across service experience groups ($p = 0.743$). Furthermore, prior CVI exposure was not significantly correlated with the score ($r = -0.058$, $p = 0.285$). The MLR model was significant ($p < 0.001$), identifying self-reported knowledge of CVI symptoms (Q8) as the only significant positive predictor ($B = +1.037$, $p < 0.001$).

Conclusions: PHMs exhibit a low baseline level of CVI factual knowledge, and this knowledge gap is consistent across different levels of professional service experience. The significant predictive power of self-reported knowledge suggests a potential confidence-competence gap. These findings underscore the need for a structured educational intervention targeting the specific factual deficits identified in this study to improve CVI case identification in primary care.

PPR: 13

AI INTEGRATED HAND FUNCTION RECOVERY SYSTEM WITH MOBILE GAMING AND SMART GLOVE FOR STROKE REHABILITATION

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Background and Objectives: Stroke can cause lasting hand function impairment, and traditional rehabilitation is limited by therapist availability, travel challenges, and low patient motivation, with minimal remote monitoring. To address this, a comprehensive system was developed to enhance engagement through gamified exercises and provide clinicians with real-time oversight. The system includes a home-based mobile app, a smart glove for objective force tracking, and a web dashboard for continuous clinical monitoring and improved rehabilitation accessibility.

Methods: A mobile application was developed to guide patients through gamified exercises, using the phone's camera for hand tracking to score movement quality. An artificial intelligence (AI) model was integrated to personalize the game's difficulty level based on patient performance. A custom smart glove with force sensors was created to capture relative grip strength during specific tasks. A secure web dashboard was developed for clinicians to review this data. The integrated system was assessed in a qualitative case study with two stroke patients at Maliban rehabilitation unit National Hospital Galle to evaluate clinical usability and functional outcomes.

Results: The clinical case study (n=2) demonstrated positive trends in functional outcomes. Patient 1 (Medical Research Council (MRC) Grade 2) showed an increase in average game score for the "Horizontal Twist Wrist" exercise (66 to 78) and an improvement in peak grip force (1.55 kg to 2.45 kg) over 10 sessions. Patient 2 (MRC Grade 2) also showed improvements in game score (52 to 66) and peak grip

force (0.95 kg to 1.55 kg). Qualitative feedback from both patients and clinicians was positive, highlighting strong patient engagement and system usability.

Conclusions: The system successfully provides a holistic, dual-modality solution for stroke rehabilitation. It addresses poor motivation through gamification and enables remote monitoring, demonstrating measurable improvements in hand function and serving as a clinically feasible platform for enhancing recovery.

PPR: 14

ACUTE POST-STROKE COMPLICATIONS: DATA FROM A TERTIARY CARE HOSPITAL

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Background and Objectives: Post-stroke complications lead to poor outcomes. Knowledge about post-stroke complications enables advance planning in management. However, data on this from Sri Lanka are sparse. We sought to describe in-hospital complications of patients with stroke treated at a Sri Lankan tertiary care centre.

Methods: All patients with stroke admitted over a five-year period (July 2019-June 2024) were prospectively assessed. Complications were classified under neurological, cardiovascular, infective, urinary, gastrointestinal, metabolic, mobility and psychological domains using established criteria. Factors associated with complications were assessed using univariate and multivariable logistic regression.

Results: We studied 2067 patients (60.3% male, mean age (standard deviation (SD)) 63.6(12.1) years; 78.1% ischaemic strokes). Of them, 43.4% developed at least one complication. Most frequent complications were constipation (20.6%), urinary incontinence (10.4%), aspiration pneumonia (8.3%), hyponatraemia (4.5%), unspecified fever (4.7%), urinary infection (3.3%), depression (3.1%) , bowel incontinence (3%), urinary retention (2.6%), and death (2.9%). Post-stroke complications were associated with higher stroke severity (admission National Institutes of Health Stroke Scale (NIHSS) ≥14, $p<0.001$), functional impairment (mRS ≥3, $p<0.001$, Barthel index≦60, $p<0.001$), co-existing risk factors (hypertension, dyslipidemia, ischaemic heart disease, heart rhythm disorders), symptoms suggestive of severe stroke (swallowing difficulty, incontinence, dysphasia, dysarthria, gaze palsy), total anterior circulation infarcts, and in-hospital mortality ($p<0.001$).

Conclusions: In this cohort of Sri Lankan patients with stroke, over 40% experienced in-hospital complications. Stroke severity, functional impairment on admission and vascular risk factors were associated with higher rates of complications. Presence of complications was associated with worse functional outcomes and higher mortality.

PPR: 15

TEMPORAL PROFILE, STROKE SUBTYPE, AND TREATMENT FACTORS ASSOCIATED WITH POST-STROKE SCAR EPILEPSY: A TERTIARY-CENTRE STUDY FROM SRI LANKA

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Background: Post-stroke epilepsy (PSE) is a leading cause of late-onset seizures in adults and contributes to long-term neurological morbidity. Although several predictors of PSE have been identified, data on stroke subtype, seizure timing, and acute stroke interventions remain limited in South Asian populations.

Objectives: To describe seizure onset timing following stroke, identify stroke subtypes associated with epilepsy, and assess the impact of acute stroke interventions, including thrombolysis and decompressive hemicraniectomy.

Methods: We conducted a retrospective observational study of patients with epilepsy secondary to stroke attending a tertiary neurology centre. Patients were identified through the vascular neurology clinic registry. Eligible patients had a documented history of stroke and a subsequent diagnosis of epilepsy. Alternative causes of seizures such as structural, metabolic or infective etiologies were excluded based on available investigations. The recruitment period spanned January 2020 to January 2025.

Data collected included demographics, stroke type, anatomical location, time interval between stroke and first seizure, seizure semiology, acute stroke interventions, antiepileptic drug therapy, seizure recurrence, and functional outcomes. Data analysis was descriptive.

Results: A total of 54 patients were included, with a mean age of approximately 60 years and a male predominance. Ischaemic stroke was the most common antecedent event, followed by haemorrhagic stroke, including lobar and deep intracerebral haemorrhages. Seizure onset occurred predominantly in the late post-stroke period, with most patients developing epilepsy more than 12 months after the index stroke, supporting delayed epileptogenesis. Early-onset seizures within the first month were less frequent. Epilepsy was more commonly observed following cortical strokes, including lobar haemorrhages and non-lacunar ischaemic infarcts, while lacunar strokes were infrequently represented. Approximately half of the ischaemic stroke patients had received thrombolysis. Only a small number underwent thrombectomy or decompressive hemicraniectomy, precluding meaningful assessment of impact on epilepsy development. Generalised tonic–clonic seizures were the most common seizure type.
Levetiracetam was the most frequently prescribed antiepileptic drug, and seizure recurrence was mainly associated with poor medication adherence.

Conclusions: Post-stroke epilepsy in this cohort predominantly followed cortical strokes and manifested after a delayed latency exceeding one year. Seizures were well controlled with monotherapy in most patients, with minimal functional impairment overall.

PPR: 16
DESCRIPTIVE STUDY OF PAEDIATRIC STROKE PRESENTING TO LADY RIDGEWAY HOSPITAL OVER ONE YEAR DURATION

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Background and Objectives: This study describes the demographics, clinical spectrum, management, and outcomes in paediatric strokes admitted to Lady Ridgeway Hospital (LRH) over one year.

Methods: We conducted a retrospective evaluation of 15 consecutive patients diagnosed with acute paediatric stroke between December 2024 and December 2025. Cases were identified from admission records of neurology and other medical wards, as well as from the hospital neuroimaging records (Magnetic Resonance Imaging (MRI)/Computed Tomography (CT)). Data on demographics, presentations, risk factors, aetiology, imaging, treatment, and modified Rankin Scale (mRS) at 3 months were analysed for associations with better outcomes.

Results: There were 15 children, with a median age (standard deviation (SD)) of 7.5 (3.9). Sixty percent were males. Presentation was heterogeneous, including focal deficits (80%), seizures (40%), encephalopathy (26.7%), headache (33.3%), and ataxia (33.3%) as predominant symptoms. Aetiologies included focal cerebral arteriopathy (20%), cardioembolic (26.7%), inborn errors of metabolism (13.3%), and idiopathic(40%). Among those who presented with hemiparesis, 66.7% exhibited right-sided hemiplegia. Imaging revealed middle cerebral artery involvement (53.3%) and posterior circulation strokes (13.3%). In-hospital mortality was 6.7 % (n=1), and 28.6% of them had a hospital stay of 7 days. At the 3-month analysis, 21.4% had achieved complete recovery with an mRS score of 0.

Conclusions: This case series identified paediatric stroke to predominantly affect males, and children of primary school age. They present with diverse neurological symptoms, making diagnosis a challenge. It was most frequently associated with idiopathic and cardioembolic aetiologies involving the middle cerebral artery. The high rate of only partial recovery at discharge underscores the substantial early morbidity and need for heightened suspicion, and timely neuroimaging and management.

PPR: 17
TRAJECTORIES OF FUNCTIONAL RECOVERY AFTER THROMBOLYSIS WITH ALTEPLASE AND TENECTEPLASE FOR ISCHAEMIC STROKE: A SRI LANKAN PROSPECTIVE COHORT STUDY

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Background and Objectives: Tenecteplase (TNK) is an alternative to alteplase (rTPA) for intravenous thrombolysis in acute ischaemic stroke, with comparable efficacy and safety. Data from low-resource South Asian settings remain limited.

Methods: Our objective was to compare the trajectory of functional status, 90-day outcomes, and safety of TNK versus rTPA in a real-world Sri Lankan cohort. We conducted this prospective cohort study at a single unit in the National Hospital of Sri Lanka. All patients who were thrombolysed for acute ischaemic stroke between July 2023 and June 2025 were included. Functional status was assessed using the modified Rankin Scale (mRS) at baseline, 24 hours, 30 days, and 90 days from thrombolysis. Generalised Estimating Equations (GEE) were used to model mRS trajectories. Secondary outcomes included mortality and post-thrombolysis complications.

Results: Among 193 patients (mean age 59.9 years, 61.5% male), 84 (43.5%) and 109 (56.5%) received rTPA and TNK respectively. Baseline characteristics were comparable between the groups. There was no significant difference in mRS distribution (adjusted common OR = 0.82, 95% CI 0.47–1.43) or mortality (9.5% vs 12.8%, p = 0.416) at 90 days. However, GEE analysis showed a favourable functional recovery trajectory with rTPA (p = 0.009), particularly in partial anterior circulation strokes. Intracranial haemorrhage rates were higher with TNK (15.6% vs 9.5%) but did not meet statistical significance.

Conclusions: TNK and rTPA had similar 90-day functional outcomes and mortality, but rTPA was associated with earlier recovery in the GEE analysis model used in this study. Larger, multicentre studies incorporating serial functional assessments are warranted to confirm these findings.

PPR: 18

EFFECT OF VITAMIN D SUPPLEMENTATION ON COGNITIVE OUTCOMES AND DYSKINESIAS OF PARKINSON DISEASE: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Background: Inflammation-driven oxidative stress is thought to contribute to nigrostriatal degeneration in Parkinson disease (PD). Immunomodulatory and potential neuroprotective effects of vitamin D are hypothesised to reduce inflammation-related neuronal injury. While PD is characterised primarily by progressive motor impairment, patients frequently develop cognitive decline and dyskinesias as the disease advances. However, studies on the effects of vitamin D supplementation on cognitive outcomes and dyskinesias are sparse.

Objectives: To evaluate the impact of vitamin D supplementation on cognitive outcomes and dyskinesia severity in PD through a systematic review and meta-analysis of randomised controlled trials (RCTs).

Methods: A systematic search of PubMed, Scopus, and the Cochrane Library identified all available RCTs evaluating the effects of vitamin D supplementation in patients with PD. Three RCTs (282 participants) examined vitamin D's effect on dyskinesia severity, and another three (192 participants) evaluated cognitive outcomes. Cognition was assessed with the MMSE, and dyskinesia severity with UPDRS-IV and mAIMS (without mental tasks). Outcomes were measured at baseline and post-intervention across varying follow-up periods.

Results: Of the three RCTs on dyskinesia severity, only one showed a significant improvement with vitamin D, while the other two found no meaningful benefit (Standardized Mean Difference (SMD) -0.537; 95% CI -1.79 to 0.73). Of the three RCTs assessing MMSE change, only two provided poolable data, and these showed no significant cognitive benefit from vitamin D (SMD −0.796; 95% CI −5.680 to −4.088). Overall risk of bias assessed using ROB-2 was low.

Conclusions: Vitamin D supplementation does not confer a statistically significant improvement in cognition or dyskinesia severity. High quality-RCTs are required to clarify the potential therapeutic role of vitamin D in PD.

PPR: 19

EPIDEMIOLOGY OF BRAIN CANCER IN SRI LANKA: AGE- AND SEX-SPECIFIC INCIDENCE TRENDS AND PROJECTIONS TO 2030

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Background and Objectives: Brain cancer is an uncommon malignancy but causes substantial neurological morbidity and mortality. Population-based data on age- and sex-specific incidence trends in Sri Lanka are limited. This study is to describe the epidemiology of brain cancer in Sri Lanka, analyse age- and sex-specific incidence patterns, evaluate temporal trends from 2010 to 2021, and project incidence to 2030.

Methods: A population-based descriptive and analytical study was conducted using Sri Lanka National Cancer Registry data from 2010–2021. Only primary malignant brain tumours (ICD-10 C71) were included. Age-specific and sex-specific incidence rates were calculated. Age-standardised incidence rates (ASR) were computed using the WHO world standard population (2000–2025). Temporal trends were analysed using Joinpoint regression, and projections to 2030 were estimated using log-linear models.

Results: A total of 4,535 brain cancer cases were recorded during the study period, with a male predominance. Incidence demonstrated a bimodal age distribution with peaks in childhood and older adulthood. The age-standardised incidence rate showed a statistically significant increasing trend over time, with a higher annual percent change among males. Projections indicate a continued rise in absolute case numbers by 2030, largely driven by population ageing.

Conclusions: Brain cancer incidence in Sri Lanka shows clear age- and sex-specific patterns with a modest but consistent upward trend. Anticipated increases by 2030 highlight the need for strengthened neurology, neurosurgery, and neuro-oncology services.

PPR: 20

TRAJECTORY OF RECOVERY AND BURDEN OF RESIDUAL SYMPTOMS FOLLOWING GUILLAIN-BARRÉ SYNDROME: A SINGLE-CENTER PROSPECTIVE COHORT STUDY FROM SRI LANKA

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Background: Guillain-Barré Syndrome (GBS) is classically a monophasic illness. In resource-limited settings, patients with GBS are not routinely followed up. However, these patients may suffer from residual symptoms and disability.

Objectives: In this study, we assessed the trajectory of recovery and burden of residual symptoms in patients who developed GBS.

Methods: This prospective cohort study was conducted at the National Hospital of Sri Lanka from 01/01/2020 to 01/04/2025. We assessed the patients during the illness and then at 1 month, 3 months, and 6 months from discharge. The primary outcome was the GBS disability score (0(no disability) – 6(death)), and the secondary outcomes were the individual residual symptoms. All patients with GBS were included. The serial improvement of the GBS disability score was assessed using the generalized equation estimate. The burden of residual symptoms was given as percentages.

Results: We included 144 patients with GBS (mean age 46.2 ± 17.3 years; male: female 0.92), and 67 completed the follow-up. There was no in-hospital mortality; one patient (1.5%) died within six months. The disability improved significantly, with only 5.9% unable to walk independently at six months. Increasing age and axonal variants (Acute Motor Axonal Neuropathy (AMAN) / Acute Motor Sensory Axonal Neuropathy (AMSAN), 37%) were independent negative predictors of recovery.
The residual symptoms at six months included positive sensory symptoms (42.6%), fatigue (30.9%), and subjective limb weakness (29.4%). Forty-eight percent had to make some change in their occupation.

Conclusion: Although many patients achieve motor recovery, there is a high burden of residual symptoms at six months in patients with GBS.

PPR: 21

CHILDHOOD AND ADOLESCENT ONSET MULTIPLE SCLEROSIS IN SRI LANKA; DEMOGRAPHIC PATTERNS AND CLINICAL OUTCOMES

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Background: Paediatric onset multiple sclerosis (POMS) (3-10% of all MS cases) is a subset of MS occurring in children and young adolescents aged under 18 years. It has distinctive clinical features, and the disease progression is different than in adult-onset MS.

Objectives: To describe the demographic patterns, disease characteristics and clinical outcomes of childhood and adolescent onset multiple sclerosis at a tertiary care hospital in Sri Lanka.

Methods: We performed a retrospective descriptive study including all patients diagnosed with POMS (Modified Mcdonald's 2017 Criteria) who had their first demyelinating event before 18 years.

Results: We included 22 patients (77.3% were females) with the median age at diagnosis of 13.5 years. In 8 patients, onset of POMS was before 12 years of age (childhood-onset POMS). Relapsing remitting multiple sclerosis was most prevalent (68.2%), and rest were clinically isolated syndromes. Cortical syndrome was the predominant presenting feature (63.6%), followed by blurred vision (22.7%). Three patients presented with encephalopathy at the onset (13.6%). Monofocal neurological deficits were found in 72.7% of patients at onset. In the cerebrospinal fluid (CSF) study, only 18% had positive oligoclonal bands (OCBs). 18% had positive serum anti-myelin oligodendrocyte glycoprotein (anti-MOG) antibodies. Brain magnetic resonance imaging (MRI) studies showed a predominant supratentorial involvement (82%). Cerebellar, brainstem, spinal cord and optic pathway lesions were found in 27.3%, 45.5%, 59.1% and 63.6% respectively. High remission rates and low median EDSS (1.5) are favourable compared to global pediatric MS cohorts.

Conclusions: Findings broadly align with international paediatric MS data: female predominance, early adolescent onset, typical MRI lesion distribution, and favorable short-term outcome with early aggressive therapy. Lower OCB positivity and modest relapse counts may reflect regional or treatment-effect differences. The high rate of remission and low disability underscore the importance of early diagnosis and use of effective disease modifying therapies (DMTs) in the paediatric population.

POSTER PRESENTATIONS
CASE REPORTS

PPC: 01

INFANTILE DEVELOPMENTAL AND EPILEPTIC ENCEPHALOPATHY ASSOCIATED WITH A HOMOZYGOUS SCN1B MUTATION: A CASE REPORT

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Background: Developmental and Epileptic Encephalopathy-52 (DEE52) is an extremely rare autosomal recessive disease caused by bi-allelic pathogenic variants in the SCN1B gene. The β1 subunit encoded by SCN1B regulates sodium channel kinetics, neuronal excitability, and cell adhesion.
Heterozygous variants have given rise to mild forms of epilepsy, including GEFS+. Bi-allelic SCN1B mutations are associated with severe early-onset encephalopathy with refractory seizures, developmental delay, regression, and premature death. This represents the first documented case from Sri Lanka.

Case Presentation: A term female infant with an unremarkable antenatal and neonatal course developed subtle eye blinking at 6 weeks, progressing to asymmetric and later bilateral myoclonic spasms by 2 months. Seizures occurred in clusters and were refractory to multiple anti-seizure agents.
Interval electroencephalogram (EEG) was normal, while video EEG (VEEG) showed generalized slowing during events. Magnetic Resonance Imaging (MRI) demonstrated mild bihemispheric atrophy.
From 7-10 months, four episodes of status epilepticus occurred, with cardiorespiratory arrest during the final

event, this was followed by profound developmental regression and cortical visual impairment.
An elder sister with an almost identical clinical phenotype died in infancy without genetic evaluation, and a paternal uncle had also died in early life following a similar presentation, together suggesting an autosomal recessive inheritance.
Genetic testing identified a homozygous pathogenic SCN1B variant, c.385_387delTTC (p.Phe129del).

Discussion: This case represents one of the most severe phenotypes of SCN1B-DEE reported to date. The homozygous p.Phe129del variant represents a rare configuration and underscores the severe consequences of β1-subunit dysfunction. Their extremely early onset, rapid progression into status epilepticus, and extent of neurodevelopmental delay emphasize the importance of early genetic evaluation. The case demonstrates that without consideration of neurogenetic testing, such presentations can be easily misclassified or overlooked clinically, particularly in LMIC settings where diagnostic resources are limited. Early molecular diagnosis permits targeted genetic counselling, which may help prevent recurrence in affected families.

PPC: 02

SYNDROME OF IRREVERSIBLE LITHIUM EFFECTUATED NEUROTOXICITY WITH LITHIUM TRIGGERED THYROID STORM AS THE FIRST PRESENTATION OF GRAVES' DISEASE IN A PATIENT WITH NORMAL LITHIUM LEVELS.

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Background: Syndrome of irreversible lithium effectuated neurotoxicity (SILENT) is under recognised and frequently misdiagnosed. Lithium is well known to cause hypothyroidism, but lithium associated thyrotoxicosis (TT) is extremely rare. Lithium is first line in the treatment of bipolar disorder (BPD) and recognised for its acute and/or chronic toxic effects.

Case Presentation: We report a 55 year-old male presenting with cognitive decline, fever, tremor, and ataxia over four days and TT, with a Burch-Wartofsky Point Score (BWPS) of 70 [TSH <0.0025 mU/L (0.35-4.94) and free T4 >5.5 ng/dL (0.7-2.0)], and a lithium level of 0.14 mmol/L (0.6-1.2). He had no other comorbidity and was compliant with his treatment for 3 years. He was treated for thyroid storm (TS) but persisting clinical symptoms later unmasked a cerebellar syndrome compatible with SILENT. Thyroiditis was present on ultrasonography, and confirmed with antibodies against thyroperoxidase >84 IU/mL (<25) and TSH receptor >30 U/L (<0.4). Non-contrast CT brain and electroencephalogram were normal. He was euthyroid and off lithium on discharge. Cerebellar signs persisted beyond two months on follow-up.

Discussion: To our knowledge, this is the first reported case of SILENT with lithium associated TT as a first presentation of Graves' disease. TT secondary to lithium is due to its direct effects on the gland and its possible role in inducing anti-thyroid autoantibodies. Many with SILENT have lithium levels < 2.5 mmol/L. Cerebellar signs are characteristic of SILENT, important in clinical characterisation, and interestingly correlate with the presence of fever - likely owing to the temperature sensitivity of the cerebellar cortex. Fever secondary to lithium induced TT may have triggered the onset of SILENT in our patient. Discontinuation of lithium can result in improvement of SILENT over time. Clinical vigilance is key in the diagnosis of SILENT and lithium induced TT with many implications to patient management.

PPC: 03

LESIONS IN THE CORPUS CALLOSUM – TUMOUR, INFECTION OR INFARCTION?

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Background: Lesions of the corpus callosum pose a significant diagnostic challenge due to a wide differential that includes demyelinating disorders, infections, neoplasms, and vascular pathology. Infarction of the corpus callosum is uncommon, largely owing to its dual arterial supply. We report a case of callosal lesions initially suggestive of a neoplasm, subsequently identified as secondary to granulomatous vasculitis.

Case Presentation: A middle-aged Sri Lankan man residing in France presented with progressive confusion and upper-limb weakness. Magnetic resonance imaging (MRI) of the brain demonstrated multiple contrast-enhancing and diffusion-restricting lesions confined to the corpus callosum. An infiltrative high-grade glioma was initially suspected, prompting a stereotactic biopsy in France. However, MR angiography revealed bilateral occlusion of the anterior cerebral arteries distal to the A2 segments; and MRI additionally showed granulomatous inflammation involving the basal meninges. Cerebrospinal fluid analysis demonstrated lymphocytic pleocytosis, hypoglycorrhachia, and markedly elevated protein levels. Histopathology from the brain biopsy showed necrotizing inflammatory lesions rich in macrophages, without evidence of malignancy or identifiable infectious organisms.

In view of the clinical course, radiological findings, and cerebrospinal fluid (CSF) profile we made a working diagnosis of possible tuberculous meningitis with associated vasculitis, despite the negative microbiological tests. The diagnosis of probable tuberculous meningitis (TBM) with secondary anterior cerebral artery (ACA) vasculitis was supported by multiple validated scoring systems (Marais, Thwaites, Kalita, Torok, Rafi criteria). The patient received two months of isoniazid, rifampicin, pyrazinamide, and ethambutol followed by 10 months of isoniazid and rifampicin, alongside adjunctive corticosteroids and aspirin. At 12- month follow-up, MRI and CSF findings had completely normalised.

Conclusion: This case illustrates the diagnostic complexity of corpus callosal lesions that mimic neoplastic processes and emphasises the importance of considering tuberculous vasculitis in atypical callosal infarction patterns, particularly in patients originating from tuberculosis-endemic regions. Early recognition of this masquerading presentation can prevent unnecessary interventions and facilitate timely treatment.

PPC: 04
LATE-ONSET MELAS UNMASKED BY METFORMIN IN AN ELDERLY PATIENT

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Background: Mitochondrial Encephalopathy, Lactic acidosis and Stroke-like episodes (MELAS) is a rare maternally inherited mitochondrial disorder that typically presents before 40 years of age. Late onset presentation beyond the sixth decade is uncommon and often pose significant diagnostic challenges. Certain medications, including metformin precipitate lactic acidosis in susceptible individuals.

Case Presentation: A 61-year-old woman was newly diagnosed with diabetes mellitus and hypertension and commenced on metformin, gliclazide and losartan. Ten days later, she developed sudden bilateral complete vision loss followed by confusion and inability to recognise family members. On admission, she was afebrile, with unremarkable general examination. Her neurological examination revealed a GCS of 14/15 with disorientation, receptive aphasia, bilateral up-going plantar and evidence of cortical blindness with normal pupillary size, reflexes and normal optic fundi. Basic laboratory investigations including CPK (creatine phosphokinase) were unremarkable, except for raised serum lactate (3.5mmol/L) . Non-contrast computed tomography (CT) brain showed bilateral asymmetrical subcortical hypo densities in the left temporal-parietal-occipital regions and right occipital region, not restricted to a vascular territory. Electroencephalogram (EEG) revealed asymmetrical slowing (left>right). Cerebrospinal fluid (CSF) analysis showed three lymphocytes with normal protein and glucose. Magnetic resonance imaging (MRI) brain demonstrated asymmetric gyri form restriction of diffusion in corresponding cortical regions.
Given her vascular risk factors, stroke was considered, and she was started on aspirin and high dose statin. Lack of improvement and persistently raised lactate prompted CSF lactate measurement and MR Spectroscopy, which demonstrated elevated CSF lactate (4mmol/L) and a lactate peak respectively, consistent with the diagnosis of MELAS. Genetic confirmation was not performed due to financial constraints. Metformin, statin and aspirin were discontinued, and she was commenced on Coenzyme Q10, L-Carnitine and L-Arginine resulting in marked functional recovery.

Discussion: This case illustrates that MELAS can present atypically in older adults. The patient's nonvascular cortical lesions, elevated lactate level and lack of response to standard treatment highlighted a metabolic aetiology. Metformin likely triggered or exacerbated the mitochondrial dysfunction, unmasking the underlying disorder. Early recognition is crucial, as prompt withdrawal of mitochondrial

toxic medications and initiation of supportive therapy can prevent irreversible neurological damage.

PPC: 05
FROM SYMPTOMS TO SEQUENCING: A CASE SERIES OF PRECISION MEDICINE IN PAEDIATRIC NEUROLOGY

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Background: Precision Medicine is defined as medical care designed to optimise the efficacy or therapeutic benefits for particular groups of patients, especially by using genetic or molecular profiling. We describe the use of genomics in precision medicine in three patients who presented with proximal muscle weakness.

Case Series:
Case 1 - A 10-year-old boy with gross motor delay, myopathic face with proximal muscle weakness and kyphoscoliosis, presented with bronchopneumonia. He did not have fatiguability or fluctuation of weakness. The clinical diagnosis was congenital myopathy. Whole-Exome Sequencing showed two heterozygous pathogenic variants in the DOK7 gene, which is associated with autosomal recessive congenital myasthenic syndrome. He improved with salbutamol, which is the recommended treatment.

Case 2 - A 12-year-old boy with gross motor delay presented with progressive proximal muscle weakness and dilated cardiomyopathy. Whole-Exome Sequencing was positive for a heterozygous pathogenic variant of the RYR1 gene, which results in Congenital Myopathy-1A (CMYO1A) with susceptibility to malignant hyperthermia. He was started on salbutamol, which has been proven to increase muscle strength in RYR1-related diseases in an open-label study. Anaesthetic precautions were advised and documented.

Case 3 - A 16-year-old girl presented with proximal muscle weakness, tibial fracture and recurrent hypocalcaemic events with normal parathyroid hormone level and high serum creatine kinase level. Whole-Exome Sequencing demonstrated two heterozygous pathogenic variants of the STIM1 gene (Tubular aggregate myopathy and STORMORKEN Syndrome) and the PTH gene (Familial Isolated Hyperparathyroidism). She was commenced on a long-term exercise training regimen, which is shown to reduce tubular degradation and vaccination was arranged for encapsulated bacteria due to associated functional asplenia.
Genetic counselling was done for all three patients and their families.

Discussion: These cases demonstrated how genetic diagnosis enables interventions that change the long-term trajectory.

PPC: 06
UNRAVELING THE ENIGMA OF OPHTHALMOPLEGIA AND NEUROPATHY: AN UNUSUAL NEUROLOGICAL PRESENTATION OF SYSTEMIC AL AMYLOIDOSIS

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Background: Systemic immunoglobulin light-chain (AL) amyloidosis is a rare plasma cell dyscrasia characterised by extracellular deposition of misfolded light chains, leading to multi-organ dysfunction. Neurological involvement occurs in a minority of patients and most commonly manifests as a length-dependent axonal peripheral neuropathy with autonomic features. Ophthalmoplegia is an uncommon but recognized manifestation, often leading to diagnostic delay. We report a young woman with a complex neurological presentation in whom a systematic evaluation revealed underlying systemic AL amyloidosis.

Case Presentation: A 35-year-old previously healthy woman, two years postpartum, presented with a two-year history of progressive bilateral lower limb numbness and weakness, followed by diplopia for six months and bilateral lower limb edema for three weeks. Examination revealed distal-predominant symmetric weakness, glove-and-stocking sensory loss with impaired proprioception, complex bilateral ophthalmoplegia with dilated pupils, ataxia, and pitting edema. Nerve conduction studies demonstrated severe sensory-predominant axonal polyneuropathy. Laboratory evaluation revealed normocytic normochromic anemia, nephrotic-range proteinuria, hypoalbuminemia, and monoclonal gammopathy.

Serum immunofixation showed IgG lambda monoclonal protein with markedly elevated free lambda light chains and a suppressed kappa/lambda ratio. Bone marrow examination revealed 3% plasma cells. Renal biopsy demonstrated Congo red–positive amyloid deposits with apple-green birefringence under polarised light, confirming renal amyloidosis. Cardiac evaluation showed mild pericardial effusion. A diagnosis of systemic AL amyloidosis with multi-organ involvement was established, and Bortezomib-based chemotherapy was initiated following multidisciplinary discussion.

Discussion: This case highlights an unusual neurological presentation of AL amyloidosis. Ophthalmoplegia is a rare but recognized feature of systemic AL amyloidosis, and this case underscores its importance as a key diagnostic clue. The combination of ophthalmoplegia with chronic axonal neuropathy, autonomic features, nephrotic syndrome, monoclonal light chains, and biopsy-proven amyloid emphasizes the need to consider amyloidosis in patients with unexplained neuropathy and cranial nerve involvement. Early recognition is critical, as prompt therapy can improve survival and organ outcomes.

PPC: 07
BETHLEM MYOPATHY MIMICKING IMMUNE-MEDIATED MYOPATHY: A DIAGNOSTIC CHALLENGE IN PROGRESSIVE PROXIMAL WEAKNESS WITH RESPIRATORY FAILURE

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Background: Bethlem myopathy is a rare collagen VI–related muscular dystrophy characterised by slowly progressive proximal weakness and contractures. Its variable phenotype and overlap with immune-mediated neuromuscular disorders may result in diagnostic delay and inappropriate immunotherapy. This case aims to highlight the diagnostic challenges of Bethlem myopathy presenting with progressive weakness, respiratory failure, and apparent partial immunotherapy responsiveness. It emphasises key clinical features that aid differentiation from immune-mediated myopathies.

Case Presentation: A 53-year-old woman presented with an 8-year history of progressive proximal lower limb weakness, later involving the upper limbs, followed by dysphagia and respiratory failure over the preceding 2 months. Examination revealed proximal weakness, finger flexion contractures, talipes equinovarus, diminished reflexes, and absence of fatigability, fasciculations, or sensory deficits. There was no ptosis, diplopia, or facial weakness.
Investigations showed normal inflammatory markers and creatine kinase levels. Electromyography demonstrated a myopathic pattern, while repetitive nerve stimulation was normal. Autoimmune and paraneoplastic screening was negative, although anti-OJ antibody was detected. Muscle biopsy revealed severe fibre atrophy with fatty infiltration, without inflammatory changes. Pulmonary function tests showed severe restrictive impairment, and echocardiography revealed dilated cardiomyopathy.

Despite the absence of classic inflammatory features, she was empirically treated for presumed immune-mediated myopathy with corticosteroids, mycophenolate, rituximab, and pyridostigmine, resulting in partial functional improvement. Subsequent genetic testing identified a pathogenic COL6A1 mutation, confirming Bethlem myopathy. The anti-OJ antibody was considered a false-positive finding.

Conclusions: This case illustrates the phenotypic heterogeneity of Bethlem myopathy and its potential to mimic immune-mediated neuromuscular disorders. Normal creatine kinase, early contractures, disproportionate respiratory involvement, and non-diagnostic biopsy should prompt consideration of collagen VI–related myopathies. Genetic testing remains crucial for definitive diagnosis and to avoid unnecessary long-term immunosuppression.

PPC: 08
A RARE FIRST STRIKE: PAEDIATRIC PAN UNMASKED BY CENTRAL NERVOUS SYSTEM INFARCTION

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Background: Polyarteritis nodosa (PAN) is a rare paediatric medium-vessel vasculitis. Central nervous system (CNS) involvement as the initial manifestation is uncommon but can present as stroke, cranial neuropathies, or seizures, posing diagnostic challenges. We report a 7-year-old girl presenting with acute ischaemic stroke as the first sign of PAN.

Case Presentation: A 7 year old previously well girl developed sudden onset of blurred vision, diplopia, and left-sided squint. Neurological examination revealed cranial nerve III, IV, VI, and VII palsies. Laboratory tests showed anaemia, thrombocytosis, and elevated erythrocyte sedimentation rate (ESR). Brain magnetic resonance imaging (MRI) demonstrated infarction in the left midbrain and bilateral paramedian thalami, consistent with artery of Percheron infarction. MR angiography and echocardiography were normal. Systemic evaluation revealed hepatosplenomegaly, aneurysmal intra-renal and hepatic arteries, and retrobulbar optic neuropathy. Autoimmune and infectious workup was negative. Initial therapy included intravenous methylprednisolone and antiplatelet therapy, as for primary CNS vasculitis.

During follow-up, she developed persistent hypertension, constitutional symptoms, and cutaneous ulcers. Escalation to biologic therapy with infliximab and adalimumab, followed by methotrexate, led to stabilisation. Renal doppler revealed focal scarring. Hypertension was managed with combination antihypertensive therapy.

Discussion: This case highlights PAN presenting initially as paediatric stroke, an unusual and potentially under-recognized manifestation. Artery of Percheron infarction is rare, emphasising the importance of detailed neuroimaging and systemic evaluation in children with stroke and inflammation. Early, aggressive immunosuppressive therapy - including biologics for refractory disease - combined with multidisciplinary care, is key to preserving organ function and optimising outcomes.

PPC: 09
FROM FEVER TO NEUROLOGICAL CRISIS: A PAEDIATRIC CASE OF DENGUE-INDUCED ACUTE NECROTISING ENCEPHALITIS

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Background: Acute Necrotizing Encephalitis (ANE) is a rare but fulminant neurological complication of viral infections, increasingly documented in dengue. It is characterized by rapid onset encephalopathy, seizures, and striking bilateral thalamic lesions on neuroimaging. Early identification is essential, as timely immunomodulatory therapy may significantly improve outcomes. This case highlights dengue-associated ANE in a child and underscores the importance of recognizing early neurological deterioration.

Case Presentation: A previously healthy 10-year-old boy initially developed a mild viral illness with low-grade fever and upper respiratory symptoms. After a short afebrile interval, he entered a second febrile phase with severe abdominal pain and repeated vomiting. He became progressively drowsy and later developed several generalized seizures with dystonic posturing. On admission, he had worsening leukopenia, thrombocytopenia, markedly elevated liver enzymes, and mild hyponatremia. His consciousness deteriorated despite seizure control, requiring ventilatory support and transfer to the paediatric intensive care unit (PICU). Dengue serology confirmed acute infection. Cerebrospinal fluid (CSF) showed elevated protein with minimal cells, and magnetic resonance imaging (MRI) demonstrated classical symmetrical bilateral thalamic lesions with additional cerebral, cerebellar and brainstem involvement, confirming ANE. He received intravenous immunoglobulin (IVIg), high-dose methylprednisolone, and plasma exchange, leading to gradual neurological improvement.

Discussion: Dengue-associated ANE is believed to result from a hyperinflammatory cytokine surge rather than direct viral invasion. This explains the characteristic CSF findings of elevated protein with few cells and the rapid clinical deterioration. Bilateral thalamic involvement on MRI is highly suggestive of ANE and should prompt urgent intervention. Early treatment with IVIG and high dose corticosteroids, and in severe cases plasma exchange, may limit neuronal necrosis by rapidly suppressing the inflammatory cascade. Prompt recognition is critical, as delays can lead to severe disability or death.

Conclusion: Dengue patients who develop altered consciousness or seizures should be urgently assessed for ANE. Rapid diagnosis and aggressive immunomodulatory therapy offer the best chance for meaningful neurological recovery.

PPC: 10
MELIOIDOSIS PRESENTING WITH MULTIPLE CRANIAL NERVE PALSIES

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Background: Melioidosis is an infection caused by Burkholderia pseudomallei, a gram negative organism, which affects many body systems. This is a case of melioidosis presenting with multiple cranial nerve palsies.

Case Presentation: A 28-year-old previously well male presented with double vision, drooping of right sided face with low grade fever for two weeks duration following a flood exposure.
On examination he was febrile and had a right lower motor neurone type facial nerve palsy and a right 6th nerve palsy.
Investigations showed elevated inflammatory markers and CSF (cerebrospinal fluid) had elevated proteins, lymphocytic pleocytosis and normal sugar. Initial blood and urine and CSF cultures, tuberculosis Genexpert and retroviral studies were negative. The diagnosis was confirmed by Melioidosis antibodies with 4-fold rise 2 weeks apart (1:640 to 1:1560) and magnetic resonance imaging (MRI) brain showing corticospinal tract and 7th and 6th cranial nerve enhancement.
He was treated with higher dose meropenem and co-trimoxazole for eight weeks. His diplopia and fever improved with treatment. Repeated imaging showed radiological resolution, and he was discharged with eradication phase antibiotics for one year.

Discussion: Neuro-melioidosis is a rare presentation of melioidosis, which presents with fever, headache and meningo-encephalitis, cerebral abscesses, cranial nerve involvement (commonly trigeminal nerve), myelitis and seizures.
In diagnosis, usual CSF findings are mononuclear pleocytosis and high protein with normal sugar levels. This is aided by the rising titer of melioidosis antibodies.

Diagnosis is often made with contrast MRI imaging which shows overt abscesses, micro abscesses which has the propensity to extend along white matter tracts, basal ganglia and trigeminal nucleus.
The treatment of neuro melioidosis is of 6-8 weeks, and with higher doses of meropenem, imipenem or ceftazidime. Among these, meropenem is preferred with addition of cotrimoxazole. The eradication phase is six months to one year with co-trimoxazole or doxycycline.

PPC: 11

PAEDIATRIC CHIKUNGUNYA ENCEPHALOPATHY: CLINICAL EXPERIENCE AT A TERTIARY CARE CENTRE

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Background: Chikungunya infection is increasingly recognised as a cause of neurological deficits in children. Although most paediatric cases are self-limiting, a small proportion develop encephalopathy, seizures or multi-organ involvement. The series describes three previously healthy patients, who presented to National Hospital Kandy, with acute neurological manifestations and confirmed Chikungunya infection. It demonstrates the varied clinical spectrum and the favourable outcome.

Case Presentation
Patient 1: A 14-year-old presented with reduced responsiveness for four hours, followed by behavioural changes lasting two days. He had high fever, vomiting, Glasgow coma scale (GCS) 10/15, upgoing plantars, and later developed a rash. Investigations showed viral counts, C Reactive Protein (CRP) 84 mg/L, negative procalcitonin, marginally elevated liver enzymes, normal NCCT brain and a troponin I of 7.1 ng/mL. Chikungunya IgM was positive with negative IgG, dengue antibodies and COVID-19 antibodies. Echocardiogram revealed mild left ventricular dysfunction and global hypokinesia, requiring anti-failure regimen. Electroencephalogram (EEG) demonstrated encephalopathy. He received intravenous immunoglobulin (IVIg) 2 g/kg with good recovery.

Patient 2: A 9-year-old developed high grade fever, reduced responsiveness for six hours with normal neurological examination except GCS 11/15. He had viral counts with CRP 20 mg/L. Chikungunya IgM was positive. EEG indicated encephalopathy. He was managed symptomatically and recovered rapidly.

Patient 3: A 2½-year-old presented with status epilepticus, with drowsiness continuing for 24 hours. EEG showed encephalopathy. Investigations revealed a viral blood count and negative CRP, with positive Chikungunya IgM and negative COVID testing. She was treated symptomatically and made a full recovery.

Discussion: This series highlights the diverse neurological presentations of paediatric Chikungunya infection, ranging from self-limiting encephalopathy to status epilepticus. Despite significant initial impairment, outcomes were excellent with supportive care. Early recognition, exclusion of other diagnoses and timely management are essential in ensuring recovery.

PPC: 12
ISOLATED CEREBRAL MUCORMYCOSIS: A RARE CASE FROM SRI LANKA

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Background: Mucormycosis is an angioinvasive infection. Though several forms of the disease exist, rhino-orbito-cerebral mucormycosis is the commonest globally and diabetes mellitus is the commonest predisposing factor. Isolated cerebral mucormycosis (ICM) is exceedingly rare and intravenous drug use is the most important risk factor.

Case Presentation: A 58 year old male patient with a history of diabetes mellitus presented with fever of 102 0F and a history of headache, photophobia and confusion of several days. A non-contrast computed tomography (NCCT) brain scan was done, and it revealed a left/sided frontal hypodense area with mass effect on left/side anterior horn of lateral ventricle with a midline shift towards the right. A lumbar puncture was done which revealed lymphocytic pleocytosis and elevated protein levels. A magnetic resonance imaging (MRI) scan of the brain showed lesions on the left frontal lobe and left basal ganglia. The patient underwent a left/sided frontal burr hole procedure and aspiration. The aspirate culture isolated Rhizopus spp. The patient was started on intravenous (IV) amphotericin B 5mg/kg daily. He also underwent a rigid nasal endoscopy (RNE) of the nasal cavity and paranasal sinuses which did not show evidence of fungal invasion. Post burr hole procedure the patient's Glasgow Coma Scale (GCS) dropped and a repeat NCCT brain revealed hydrocephalus and neurogenic oedema. The patient underwent a repeat burr hole procedure and drainage of the left frontal lobe abscess one month after the first procedure. Direct microscopy findings of this aspirate revealed broad aseptate fungal filaments suggestive of mucormycosis, but culture did not isolate any organism.

Discussion: We encountered a patient with isolated cerebral mucormycosis (ICM) who presented with features of meningitis. After a month of treatment with IV amphotericin B and surgical intervention twice, the patient eventually made a recovery and was discharged from the hospital.

PPC: 13
PROGRESSIVE HEMICHOREA-HEMIBALLISMUS AS A MANIFESTATION OF CENTRAL NERVOUS SYSTEM TUBERCULOSIS

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Background: Hemichorea-Hemiballismus (HCHB) in adults is usually associated with vascular or metabolic aetiology. Infectious aetiologies like central nervous system (CNS) tuberculosis are uncommon and can be a diagnostic challenge, particularly when cerebrospinal fluid (CSF) studies are normal.

Case Presentation: A 50-year-old woman with diabetes, hypothyroidism and hypertension presented with progressively worsening involuntary movements of right upper and lower limbs over three months. She had no systemic or constitutional symptoms. Upon examination, she was afebrile with unremarkable general findings. Neurological assessment revealed right sided chorea and ballismus with otherwise normal findings.
Non-contrast computed tomography (CT) showed hypo dense lesions in the left thalamus and internal capsule region. Contrast CT and magnetic resonance imaging (MRI) demonstrated multiple ring-enhancing lesions in these areas.
Laboratory investigations, full blood count, LDH (lactate dehydrogenase) and metabolic screening, were largely unremarkable, except for random blood sugar (RBS) 165mg/dL, ALP 138U/L, GGT 116U/L and ESR 40mm/hr. Mantoux test was strongly positive(15mm). CSF analysis revealed 10

lymphocytes with normal glucose and protein with negative CSF GeneXpert. CT chest, abdomen, pelvis showed multiple enlarged para-aortic lymph nodes, inaccessible for biopsy. Malignancy screening with ultrasound of thyroid, breast, pelvis, bone marrow study, upper GI endoscopy with biopsy, carcinoembryonic antigen was negative. Her toxoplasma IgG was positive with negative IgM. Screening for retroviral and syphilis was unremarkable. In the context of high endemicity, supportive evidence with exclusion of other differentials, diagnosis of CNS tuberculosis was considered, and the patient was commenced on anti-tuberculous therapy which prevented neurological deterioration.

Discussion: This case illustrates an uncommon presentation of CNS tuberculosis manifesting as HCHB with atypical ring enhancing lesions. A high index of suspicion, integration of clinical, radiological and immunological findings, prompt anti-tuberculous treatment (ATT) can lead to favorable outcomes.

PPC: 14
LONGITUDINALLY EXTENSIVE HAEMORRHAGIC MYELITIS: A DIAGNOSTIC CLUE TO OCCULT DUODENAL ADENOCARCINOMA

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Background: Longitudinally extensive haemorrhagic myelitis is a rare entity and typically suggests an underlying inflammatory, vascular, or paraneoplastic process. Duodenal adenocarcinoma is an uncommon gastrointestinal malignancy, particularly in young adults, and its association with spinal cord inflammation is rarely described.

Case Presentation: A 20-year-old female presented with sudden onset bilateral lower limb numbness and weakness, progressing to complete loss of power and urinary retention over 48 hours. Examination revealed flaccid paraplegia with areflexia, a T2 sensory level and sphincter involvement. She had a background of rectal tubulovillous adenoma and was undergoing annual endoscopic surveillance with intermittent polypectomies. She was the only child in the family, with no family history suggestive of inherited gastrointestinal disorders, and macroscopic colonic appearances during surveillance were not consistent with familial adenomatous polyposis; therefore, formal genetic testing was not pursued.

MRI of the spine revealed longitudinally extensive intramedullary T2 signal abnormality from C4 to the conus with heterogeneous T1/T2 signal, blooming foci, patchy enhancement and associated subarachnoid haemorrhage, without intramedullary mass or extradural compression. CSF analysis demonstrated lymphocytic pleocytosis, markedly elevated protein, low glucose, xanthochromia and red cells; cerebrospinal fluid (CSF) oligoclonal bands were negative. AQP4-IgG, anti-MOG antibodies and tumour markers were negative. Gastrointestinal evaluation revealed melaena, and endoscopy identified a circumferential lesion in D2, with histology confirming duodenal adenocarcinoma. She received high-dose corticosteroids, plasma exchange and intravenous immunoglobulin; however, neurological recovery was poor and she remained clinically static, and tumour resection was scheduled.

Discussion: The combination of haemorrhagic longitudinally extensive myelitis, inflammatory CSF findings and absence of metastatic disease supports a paraneoplastic inflammatory vasculopathy. This case highlights the importance of evaluating occult malignancy in atypical myelitis, especially in patients with an elevated baseline risk of malignancy, irrespective of age.

PPC: 15
A SALTY RELAPSE: CEREBRAL SALT WASTING PRESENTING AS A RELAPSE OF AQUAPORIN-4 POSITIVE NEUROMYELITIS OPTICA SPECTRUM DISORDER

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Background: Neuromyelitis optica spectrum disorder (NMOSD) is an autoimmune astrocytopathy mediated by aquaporin-4 antibodies. Hypothalamic involvement is well recognized and can lead to neuroendocrine disturbances. Hyponatremia in NMOSD is usually due to the syndrome of inappropriate antidiuretic hormone secretion (SIADH) or, rarely, central diabetes insipidus (cDI). Cerebral salt wasting (CSW), a well-recognized complication following subarachnoid hemorrhage or neurosurgery is not previously described in NMOSD.

Case Presentation: A 23-year-old female with aquaporin-4-positive NMOSD with previous history of three relapses, presented one week after her third rituximab infusion with polyuria (11 L in 24 hours) and rapidly progressive encephalopathy which led to intubation and intensive care. Investigations revealed severe hypotonic hyponatremia (serum sodium 104 mmol/L; serum osmolality 245 mOsm/kg), elevated urinary sodium (107 mmol/L), urine osmolality (164 mOsm/kg), and blood urea nitrogen (BUN) 145 mg/dL with hypovolemia, suggestive of CSW. Cerebrospinal fluid showed isolated elevated proteins (75 mg/dL). Magnetic resonance imaging of the brain demonstrated new T2/FLAIR enhancing lesions including the left hypothalamus, right medial thalamus, and right periventricular white matter, depicting a relapse of NMOSD. Her CSW was managed with 3% saline and fludrocortisone, and relapsed with intravenous glucocorticoids followed by five plasmapheresis cycles, leading to excellent clinical recovery. Since she developed her fourth relapse while on rituximab with adequate B-cell depletion (CD19 lymphocyte levels 0.7%), she was switched to tocilizumab for maintenance.

Discussion: This case represents the first reported occurrence of CSW during an NMOSD relapse. Acute involvement of osmoregulatory structures, including the hypothalamic supraoptic and paraventricular nuclei, provides a plausible pathophysiologic basis for CSW. Marked polyuria, natriuresis, hypovolemia, and elevated BUN distinguished CSW from SIADH, a distinction of major clinical importance, as fluid restriction appropriate for SIADH may be harmful in CSW. Relapse despite effective B-cell depletion suggests rituximab resistance and supports therapeutic escalation to interleukin-6 receptor blockade with tocilizumab.

PPC 16
BEYOND THE GRIP: UNMASKING ANTI-MAG NEUROPATHY MIMICKING CIDP

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Background: Distal acquired demyelinating symmetric neuropathy (DADS) is a recognized variant within the spectrum of immune-mediated demyelinating neuropathies. When associated with IgM monoclonal gammopathy and anti–myelin-associated glycoprotein (anti-MAG) antibodies, DADS represents a distinct clinical entity that differs from chronic inflammatory demyelinating polyneuropathy (CIDP) in pathophysiology, prognosis, and treatment response. Early differentiation is crucial, as anti-MAG neuropathy is typically resistant to standard CIDP therapies and responds better to B-cell–directed treatment.

Case Presentation: A 72-year-old woman with a background of ischaemic heart disease presented with a 5-year history of slowly progressive distal sensory symptoms, initially involving the lower limbs and later the upper limbs, leading to gait instability and recurrent falls. There was no autonomic, cranial nerve, or sphincter involvement. Neurological examination revealed distal sensorimotor impairment without cerebellar signs. Nerve conduction studies demonstrated a severe, length-dependent generalized demyelinating sensory-motor neuropathy. Cerebrospinal fluid analysis showed albuminocytologic dissociation, and an initial diagnosis of CIDP was considered.

Further evaluation revealed rouleaux formation on peripheral smear and a monoclonal IgM-kappa paraprotein (6.8 g/dL) on serum protein electrophoresis and immunofixation. Bone marrow examination showed no evidence of multiple myeloma, and systemic malignancy screening was negative. Despite treatment with intravenous immunoglobulin and high-dose intravenous methylprednisolone, the patient showed no clinical improvement and continued to deteriorate. Subsequent testing revealed positive anti-MAG antibodies, confirming the diagnosis of anti-MAG neuropathy. The patient was initiated on rituximab therapy.

Conclusion: This case highlights the importance of considering anti-MAG neuropathy in elderly patients presenting with distal, slowly progressive demyelinating neuropathy, especially in the presence of IgM monoclonal gammopathy. Recognition of this entity is essential, as it is pathophysiologically distinct from CIDP and requires targeted B-cell–depleting therapy rather than conventional immunomodulatory treatment.