between 2013 and March 2021 admitted at Sainte-Justine University Center Hospital with acute symptomatic seizures. Associations were assessed using Student T-test and Fisher exact test. Results: We did not observe significant change in the number of ASMs prescribed for acute seizure control (33% required 33 ASMs before vs 22% after 2016) nor significant change in frequency of prescription of ASM at discharge over time. ASM continuation at discharge was not associated with seizure recurrence (p=0.14, OR 2.14, 95%CI 0.78-5.86) or epilepsy (p=0.78, OR 1.32, 95% CI 0.45-3.90). Epilepsy occurred in 15 (12%) of children between 15 days to 72 months of age. Conclusions: No association was found between ASM maintenance at discharge following acute symptomatic neonatal seizures and the occurrence of epilepsy. Discontinuation of ASMs should be considered prior to discharge.

Other Multidisciplinary

P.091

Multi-modal analysis of outcomes in pediatric mild traumatic brain injury (mTBI)

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Background: mTBI is the most common type of head injury among children but diagnosing and managing symptoms are challenging due to heterogeneity. This study used multi-modal analysis to examine how acute mTBI symptoms transition to chronic deficits. Methods: Subjects included a cohort with mild TBI (n=40, 8-18 years old) and age/sex-matched controls (n=27). All participants received symptom assessment, neuropsychological evaluation, ERP assessment, neuroimaging, and serum cytokine analysis. Results were analyzed individually and in multi-modal models to identify important outcome predictors. Results: mTBI resulted in higher symptom burdens compared to controls. There were no group differences in measures of balance, ERP, FA, or MD. Female mTBI participants had lower CNSVS Neurocognition Index scores (p=0.0401) and faster reaction times (p=0.0385) than controls. Repetitive mTBI males had faster psychomotor speed than symptomatic mTBI males (p=0.0260). CTACK levels were higher in female mTBI groups (p= 0.0043), SCGF- levels were lower in male mTBI groups (p=0.0486), and MDC levels were lower in female mTBI groups (p=0.0377) compared to controls. Multi-modal models revealed key predictors from all modalities, despite most measures producing non-statistically significant results in individual analyses. Conclusions: Multi-modal analysis may afford the opportunity to delineate complex mTBI pathology and provide better identification of biomarkers than unimodal analysis.

Stroke

P.092

Health inequity and time from stroke onset to arrival trends: a single-centre experience

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Background: Clinical outcomes following childhood arterial ischaemic stroke (AIS) depend on age at the time of stroke, infarct size and location. However, other important variables including health inequity and stroke onset to arrival times remain inadequately addressed. This study reported trends in health inequity and stroke onset to arrival times along with proximity to a stroke centre in Canada. Methods: Childhood AIS patients (N=234) with stroke onset between 2004-2019 at a Level 2 (comprehensive) stroke centre were included. Measures of material deprivation included household income, education, single-parent families, and housing quality. Patients were stratified into 3 cohorts (by date of stroke onset) and postal codes were categorized as minimal, moderate, or most deprived neighbourhoods. Results: Over the 16-year period, an increasing number of patients arrived from the most deprived neighbourhoods. Although, there was no significant association between material deprivation and stroke onset to arrival time, an increasing number of patients presented within 6 hours of stroke onset ($\chi^2 = 13.8$, $p = 0.008$). Furthermore, most patients arrived from urban neighbourhoods. Conclusions: The faster stroke onset to arrival trend is encouraging, however, material deprivation trends are concerning. Thus, future studies exploring post-stroke outcomes should consider material deprivation, stroke onset to arrival times, and geographical proximity.

Clinical Neurophysiology (CSCN) Dementia and Cognitive Disorders

P.094

The three sisters of fate: Genetics, pathophysiology and outcomes of animal models of neurodegenerative diseases

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Background: Alzheimer's disease, Parkinson's disease, and Huntington's disease are neurodegenerative disorders characterized by progressive structural and functional loss of specific