

NEUROCRITICAL CARE

P.020

Transcranial doppler for risk assessment of subarachnoid hemorrhage

L Poirier (Ottawa) V Brissette (Ottawa) S Ghojeh Biglou (Ottawa) S English (Ottawa) C Ducroux (Ottawa) T Ramsay (Ottawa) B Dewar (Ottawa) M Shamy (Ottawa)*

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Background: Vasospasm is an important complication of subarachnoid hemorrhage (SAH). Attempts to identify patients at highest risk of vasospasm have not led to practice change. We sought to identify patients at lowest risk of vasospasm by testing the prognostic utility of novel low risk criteria: mean MCA velocities on TCD that peaked and remained below 120 cm/s by the 7th day. Methods: Retrospective observational study of TCD values in patients admitted to The Ottawa Hospital with SAH 2018-2023. The primary outcome was presence of moderate to severe vasospasm (MCA mean velocity >160 cm/s) by day 21. Results: Data were collected on 211 patients, of whom 197 fulfilled inclusion criteria. Only 2 of 104 patients (2%) meeting our low-risk criteria developed the primary outcome, compared to 48 of 93 patients (52%) who did not meet criteria (RR 27). The Negative Predictive Value (NPV) for vasospasm in our low-risk group was 98%. Conclusions: Our low-risk criteria based on TCD patterns in the first 7 days after SAH can identify patients at very low risk of vasospasm with great accuracy. This could inform a future prospective study.

NEUROIMAGING

P.021

Hyperglycemia presenting with visual hallucinations due to occipital lobe seizures

H Chua (Singapore) H Chiew (Singapore) Z Lim (Singapore) W Nadika (Singapore) L Goh (Singapore)*

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Background: Hyperosmotic hyperglycemic nonketotic state (HHS) is associated with myriad neurological complications such as seizures. Methods: We report a case presenting with visual

radiologically isolated syndrome (pwRIS) and to evaluate their association with markers of adverse clinical outcomes. Methods: Epstein-Barr nuclear antigen 1 (EBNA1) and viral capsid antigen (VCA) titres were quantified in a cohort of 47 pwRIS and 24 healthy controls using Enzyme-Linked Immuno-Sorbent Assay. Plasma glial fibrillary acidic protein (GFAP) and neurofilament light protein (NfL) were measured using single-molecule array. MRI lesion metrics and the development of MS symptoms over time were also evaluated. Results: EBNA1 titres were higher pwRIS compared to healthy controls ($p=0.038$), while VCA titres were not ($p=0.237$). A positive correlation was observed between EBNA1 titres and plasma GFAP in pwRIS ($p=0.005$). Neither EBNA1 nor VCA titres correlated with NfL. MRI lesion measures and the development of MS symptoms did not show any significant relationship with EBNA1 or VCA titres. Conclusions: Elevated EBNA1 titres are detectable prior to MS symptom onset and correlate with GFAP, a biomarker associated with worse clinical outcomes. However, their role in disease progression and clinical outcomes requires further investigation.

P.018

24-year-old woman post-partum with subacute paresthesias and facial diplegia

T Badra (Montréal) JF Paul (Montréal) T Langlois-Therrien (Montréal) A Richard (Montréal)*

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Background: Facial diplegia with paresthesias (FDP) is a rare Guillain-Barré Syndrome (GBS) variant, characterized by subacute onset of bilateral facial palsy with no other motor weakness, absent reflexes and distal paresthesias, that may be associated with anti-ganglioside autoantibodies. Methods: Patient chart, including medical notes, radiologic, electrophysiological and laboratory testing during the patient's hospitalization in December 2024 were reviewed. Results: We report the case of a 24-year-old woman, who presented one-week post-partum with a history of tongue and progressive distal extremity paresthesias, headache and gait instability. During hospitalization patient progressively developed bilateral lower limbs areflexia and facial diplegia. Imaging was negative for a central cause but lumbar puncture and clinical examination guided the diagnosis of FDP. Patient responded to a course of intravenous immunoglobulins (IVIg) and was discharged home without any weakness. Conclusions: This case illustrates the rarer FDP presentation of GBS, which can be more frequent in the postpartum period, and explores the differential diagnosis of subacute facial diplegia.