expected with GRIN2A-related disorders. This report contributes to evidence of the GRIN2A variant pathogenicity.

P.021

Childhood small vessel primary angiitis of the CNS: a potentially treatable cause of super-refractory status epilepticus

M Chiu (Vancouver) A Datta (Vancouver)*

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Background: Childhood primary angiitis of the central nervous system (cPACNS) is a rare inflammatory disease of brain vessels. The small vessel subtype is diagnosed on brain biopsy and often presents with cognitive and behavioural changes, headaches and seizures. However, there are few reported cases of super-refractory status epilepticus. **Methods:** We present a case of small vessel cPACNS complicated by super-refractory status epilepticus and review the literature. **Results:** Our patient is a previously healthy 11-year-old boy who presented with new-onset seizures and encephalopathy in the context of fever. He developed super-refractory status epilepticus, requiring burst suppression for four weeks with various IV infusions. During this time, he was on the ketogenic diet and tried eight anti-seizure medications. Extensive investigations included brain biopsy confirming small vessel cPACNS. He was treated with IV methylprednisolone, oral steroids, IVIG, and cyclophosphamide. After prolonged rehabilitation, he recovered almost completely and has a normal neurological examination with no epileptiform activity on EEG. **Conclusions:** Small vessel cPACNS should be considered in the differential diagnosis of super-refractory status epilepticus. Despite being in SE for four weeks, symptomatic management of seizures and immunosuppression to treat the underlying pathology resulted in favourable neurological outcomes. This is one of the longest cases of SE in small vessel cPACNS in the literature.

Functional Neurosurgery and Pain

P.022

Hemifacial Spasm due to dolichoectatic vertebrobasilar artery compression

CM Honey (Winnipeg) A Almojuela (Winnipeg) M Hasen (Winnipeg) AM Kaufmann (Winnipeg)*

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Background: Hemifacial Spasm (HFS) is rarely caused by a dolichoectatic vertebrobasilar artery (eVB) compression of the Facial Nerve. This can pose a surgical challenge when performing microvascular decompression as vessel mobilization is often difficult due to atherosclerosis, tethering from brainstem perforators, and large size. These patients are often not considered for surgery. **Methods:** A retrospective chart review of patients who were surgically treated by the senior author between 2003 and 2017 with an admitting diagnosis of HFS was performed. Patients with preoperative neuroimaging demonstrating eVB compression of their facial nerve/root were included. **Results:** During the 15-year review, 315 patients underwent microvascular decompression for HFS and 21 (6.7%) had dolichoectactic vertebrobasilar compressions. At final followup (>3 months) 19 patients (90.4%) experienced reduction in symptoms with 15 (71.4%) having complete resolution. One patient required re-operation and benefitted from subsequent symptom relief. The majority of culprit compression was found proximally on the pontine surface. Mobilization of the culprit vessel was achieved successfully in the majority of cases with Teflon pledgets. There were no perioperative strokes or death. Complications are presented **Conclusions:** Microvascular Decompression for Hemifacial Spasm caused by dolichoectatic vertebrobasilar artery compression can be performed with a high rate of safety and success in the setting of a high case volume centre.

P.023

Clinical and patient satisfaction outcomes after partial sensory rhizotomy for refractory trigeminal neuralgia among MS patients

M Bigder (Winnipeg) S Krishnan (Winnipeg) EF Cook (Boston) AM Kaufmann (Winnipeg)*

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Background: MS related trigeminal neuralgia (MS-TN) is associated with high recurrence and retreatment rates. Optimal treatment and role for partial sensory rhizotomy (PSR) for MS-TN remains to be determined. **Methods:** We analyzed time to treatment failure (TTF) after PSR (n=14) versus other prior procedures (n=53) among 12 consecutively treated MS-TN patients. Kaplan-Meier curves and Log-Rank tests were utilized to compare BNI pain scores and TTF after PSR vs prior procedures using the same patient cohort as their own control group. Subsequent analysis compared TTF after PSR to other procedures (n=93) among a second cohort of 18 MS-TN patients not undergoing PSR. **Results:** TTF was significantly longer after PSR compared to prior procedures among the PSR cohort ($p<0.0001$) with median TTF of 79 vs 10 months respectively. Similarly, there was a longer TTF after PSR compared to prior procedures among the MS-TN cohort with median TTF 79 vs 16 months respectively ($p<0.001$). PSR resulted in a higher proportion of excellent pain scores when compared to prior procedures in the MS-TN cohort (77% vs 29%, $p<0.001$). **Conclusions:** TTF was significantly longer following partial sensory rhizotomy compared to other prior procedures in MS-TN patients. A higher proportion of patients achieved excellent BNI pain scores after PSR.