and predictors of post-operative seizure freedom. *Results:* Seventeen papers were identified encompassing 97 DNET and 95 ganglioglioma patients. Fifteen patients were found with other neuroglial tumors (NGT) or NGT not-otherwise-specified. DNET patients were found to have less frequent seizures, more likely to have second lobe involvement, and to achieve gross total resection. Seizure freedom was achieved in roughly 80% of patients, with no distinction by tumor type, with no surgery-related or peri-operative deaths. For DNETs, seizure freedom was associated with shorter seizure duration, simple lesionectomy, gross total resection, and shorter duration of follow-up. In ganglioglioma patients, seizure freedom was associated with younger age at surgery, secondary generalization (unexpectedly), absence of dysplasia, and gross total resection. Gross total resection was the strongest predictor. *Conclusions:* Epilepsy surgery for DNET and ganglioglioma had similar outcomes with gross total resection being the strongest predictor.

P.125

A severe case of Menkes: an infant's presentation with intraventricular hemorrhage

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Background: Menkes disease is a rare, X-linked recessive disorder of the ATP7A gene, a copper transporter; resulting in systemic copper deficiency. The deficient function of copper-dependent enzymes manifests clinically with failure to thrive, seizures, hypotonia, coarse hair, connective tissue abnormalities, and neurodegeneration. Cerebral arteries are often elongated, tortuous, and fragile. *Methods:* This case report was prepared using the patient's hospital chart, and a review of the literature undertaken using PubMed. Our case was subsequently compared and contrasted to known Menkes' literature. *Results:* We present the case of a 2 month old male with Menkes disease who presented with new seizure onset in the setting of a Grade III intraventricular hemorrhage with hydrocephalus. He deteriorated into status epilepticus, and palliative care was instituted. On autopsy, pronounced tortuosity of his cerebral vasculature was noted, as well as a bilaterally cystic brain with an organizing hemorrhage on the ventral surface of the brainstem. *Conclusions:* Although Menkes disease often presents with seizures, neurologic deterioration, and abnormal cerebral vasculature; the quick demise subsequent to an intraventricular hemorrhage is somewhat unusual and discussed.

P.127

Management and outcome of spontaneous sub-aponeurotic fluid collections in infants: the Hospital for Sick Children experience and review of literature

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Background: Spontaneous sub-aponeurotic fluid collection (SSFC) is an uncommon and newly described entity of unknown etiology, observed in infants less than one year of age. In this paper, we report a series of 9 infants who presented to the Hospital for Sick Children with SSFC over the 2004 to 2015 period, focusing on the natural history of this rare condition. *Methods:* Data from the HSC was retrospectively reviewed. Patient age and gender, birth history, past medical history, laboratory findings, imaging characteristics, management, and outcome were analyzed. *Results:* Our case series consists of 4 males and 5 females, ranging from 5 weeks to 11 months of age. All cases of SSFC developed spontaneously over a period of days, and the infants had no history of injuries or hair manipulation. Six patients had a remote history of forceps or vacuum-assisted births. One patient experienced fluctuating fluid collection size over 4 months, but in all the cases, the collections resolved spontaneously without structural or infectious complications. *Conclusions:* This is the largest series describing SSFC to date, and summarizes the experience of a large academic neurosurgical center. SSFCs develop spontaneously without immediate preceding trauma, and an extensive hematology or child abuse workup is not necessary. A conservative approach with outpatient follow-up is advocated.

Spine and Peripheral Nerve

P.128

The clinical utility of the spinal instability neoplastic score (SINS) and its role in surgical management of patients with spinal metastatic disease

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Background: The Spinal Instability Neoplastic Score (SINS) is used to assess mechanical instability based on radiographic and clinical factors. We conducted this study to evaluate the clinical utility of SINS in surgical decision-making in spinal metastasis and its association with metastatic epidural spinal cord compression (MESCC). *Methods:* We allocated 285 patients with spinal metastatic disease through a retrospective review. SINS was calculated using good-quality computed tomography. The degree of MESCC was assessed using 0 to 3 grading system. *Results:* Based on SINS, patients were categorized into stable (35.1%), potentially unstable (52.3%) and unstable (12.6%) groups. In the surgical intervention group, there was 69.5% treated with decompression and instrumented fusion, 17% with decompression alone, 8.5% with percutaneous vertebral augmentation and 5% with instrumented vertebral augmentation. A significantly higher proportion of patients with stable SINS (63.6%) were treated surgically without instrumentation ($X2=10.6$, $P=0.005$), whereas instrumentation was utilized in 87.5% of patients with unstable SINS. Grade 3 MESCC occurred in 65.5% of patients with unstable SINS, whereas 71.4% of patients with stable SINS had grade 0 MESCC ($X2=42.1$, $P<0.001$). *Conclusions:* SINS is associated with higher degrees of MESCC and plays an important role in surgical decision-making, facilitating assessment and recognition of spinal instability in need of urgent appropriate surgical interventions.