

thought to be safe, attention should be paid to any child with chronic neurological signs, particularly younger children who may be at higher risk for chronic enterovirus infection.

P.030

Clinical findings, immunotherapy and neuroimaging results in Pediatric Anti-NMDA Receptor Encephalitis

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Background: Anti-NMDAR Encephalitis is an autoimmune disease of children and adults which most often presents with sub-acute psychiatric disturbance or seizures, but includes a broad group of potential clinical manifestations. Routine neuroimaging, such as cerebral MRI, is often nonspecific or normal. **Methods:** This study reports a series of retrospectively reviewed pediatric patients with AntiNMDAR encephalitis with emphasis on the evolution of clinical features over time, cerebral MRI, 18-FDG Positron emission tomography (PET) findings, and post illness neurocognitive features. **Results:** Four cases of Antibody confirmed AntiNMDAR encephalitis were included, two male and two female, of a mean of 13 years of age. Patients had a mean of three symptom categories by presentation, though many of these were subtle, progressing to 6.5 by the end of the first month. MRI, CSF and EEG were abnormal for one, three and all patients, respectively. All patients had abnormal cerebral PET scans, and all displayed some temporal lobe hypermetabolism on either initial or repeat cerebral PET Scan. **Conclusions:** Anti-NMDAR encephalitis is a variable disorder with an evolving clinical presentation in children. Temporal hypermetabolism on cerebral PET may be a time dependent feature of the disorder.

P.031

A qualitative study of patient perspectives regarding the role of the neurologist in advanced Multiple Sclerosis

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Background: With few evidence-based disease-modifying therapies being available for patients with progressive multiple sclerosis (PMS), how can neurologists best care for their patients? Little is known about the perspectives of patients with respect to the role they would like their neurologist to play in their care. We hereby report an update to our abstract presented at the Canadian Neurological Sciences Federation's annual congress in 2016. **Methods:** Patients with PMS having an Expanded Disability Status Scale (EDSS) score of 6 or more were invited to participate. Semi-structured interviews were conducted with patients and their caregivers, and written questionnaires were completed by all participants. Collected data was subjected to thematic coding. **Results:** We have now interviewed a total of 18 patients (compared to 10 in 2016) and have reached thematic saturation. The majority of patients identified the neurologist as a useful figure in their care. Three main reasons were identified: (1) The neurologist provides information about new research and therapies (2) The neurologist educates patients about their disease and available services (3) The neurologist is viewed as an important

supportive figure. **Conclusions:** Despite a lack of disease-modifying treatments for progressive multiple sclerosis, patients with PMS view the neurologist as an essential provider of care.

NEURO-ONCOLOGY

P.032

Cavernous sinus masses: An unusual case and review of the literature

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Background: We present a 67-year-old male with a two-week history of progressive double vision. Past medical history included oropharyngeal SCC, T4N2cM0, post-CCRT, and remote sarcoidosis. Clinically, the patient had multiple cranial nerve palsies affecting bilateral ocular motor function. Neuroimaging showed an enhancing mass involving the sella and cavernous sinuses. Whole-body PET showed FDG-avid lesions in the sella and liver. Transsphenoidal biopsy of the sellar mass was obtained for tissue diagnosis. **Methods:** Details of the case were obtained from the patient's EMR. Neuroimaging and neuropathology were reviewed with the appropriate subspecialists. A literature search was performed using multiple databases (PubMed, Web-of-Science) and relevant articles were included for review. **Results:** Sellar mass biopsy confirmed p16+ve SCC, identical to the patient's known primary malignancy. On review of enhanced skull-base images, there was no evidence of direct tumor extension, favouring hematogenous spread. **Conclusions:** This case demonstrates the localizing potential of cavernous sinus masses. SCC metastases to the cavernous sinus are rare, and confer a poor prognosis. The presence of a p16 mutation has public health implications, as this mutation demonstrates more frequent and aggressive distant metastatic potential, and as a surrogate marker for high-risk HPV infection, represents a preventable risk-factor for a rapidly increasing cause of head and neck cancer in the Western world.

P.033

Biopsy versus subtotal versus gross total resection in patients with low-grade glioma: a systematic review and meta-analysis

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Background: The role of extent of surgical resection (EOR) on clinical outcomes in patients with low-grade glioma requires further examination. **Methods:** We systematically searched MEDLINE, Embase, and the Cochrane Library for studies published between January 1, 1990 and January 5, 2018 on predefined patient outcomes regarding different EOR of low-grade glioma. **Results:** Our literature search yielded 60 studies including 13,289 patients. Pooled estimates of overall survival showed an increase from 3.79 years (95% CI, 2.37–5.22) in the biopsy group to 6.68 years (95% CI, 4.19–9.16) in

STR to 10.65 years (95% CI, 6.78–14.52) in GTR. When compared to STR, GTR prolonged progression-free survival by 2.08 years (95% CI, 0.26–3.89; $P=0.025$). Pooled estimates of seizure control showed an improvement from 47.8% (95% CI, 26.7–69.6) with biopsy to 54.2% (95% CI, 48.7–59.6) with STR to 81.0% (95% CI, 74.6–86.2) with GTR. Compared to STR, GTR delayed malignant transformation (RR, 0.43; 95% CI, 0.20–0.93; $P=0.032$), without increasing postoperative mortality (RR, 0.38; 95% CI, 0.07–1.97; $P=0.250$) or morbidity (RR, 1.22; 95% CI, 0.65–2.28; $P=0.540$). **Conclusions:** Among patients with low grade gliomas, higher degrees of safe EOR, were associated with longer overall and progression-free survival, better seizure control, and delayed malignant transformation, without increased mortality or morbidity.

P.034

Supratentorial lateral ventricle hemangioblastoma in Von Hippel Lindau

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Background: Supratentorial ventricular hemangioblastoma (HB) associated with Von Hippel Lindau (VHL) are extremely rare. Due to their vascularity and location, their management can be difficult. **Methods:** A 35 year old female with VHL, has been followed for 25 years with multiple intracranial and spinal tumours. Surgical removal was carried out on one large cystic and solid posterior fossa lesion. In addition, she underwent adrenalectomy for pheochromocytoma. There were no pancreatic or renal lesions. On serial follow up for years, a left frontal ventricular lesion showed increasing size with clinical signs of increased ICP and marked hydrocephalus, requiring shunting procedures, which were carried out 11 years ago. She has been clinically stable since. **Results:** Hemangioblastomas of the CNS are rare and account for 2% of primary CNS tumours. Supratentorial location is estimated at 4% for sporadic and 13% for HB associated with VHL. The lateral ventricular location is extremely rare. Review of the literature revealed a total of 9 cases of supratentorial ventricular location. The majority of the lesions are associated with VHL and they are solid and vascular lesions. In our cases there was a cystic component. **Conclusions:** If removal is contemplated, angiography with possible preoperative embolization may be required.

P.035

Peritumoral brain edema in meningiomas: correlation with surgical findings and prognosis

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Background: Peritumoral brain edema (PTBE) in meningiomas had been a subject of interest; its occurrence in an extra-axial tumor was the reason of many studies and published data. Our study was made to evaluate the exact implication of Peritumoral brain edema in meningiomas in intraoperative and short postoperative prognosis. **Methods:** During 2006 to 2011, 45 patients with supratentorial meningiomas were studied. Intraoperatively, certain findings were

reported including: easy or difficult resection, Simpson's grade of removal, brain tumor interface, plane of cleavage, pial vascularization of the tumor and arachnoid disruption. Morbidity and mortality were recorded; also postoperative CT and/or MRI were obtained within the first 3 months. **Results:** There were 26 meningiomas (57.7%) with peritumoral edema and 19 meningiomas without (42.3%). Pial vascularization of the tumor was defined in 24 patients (53.3%), four patients (21%) had a pial blood supply in edema negative group compared to 20 patients (76.9%) in edema positive group. In this study, there was one case mortality (2.2%) in edema positive group. As regard morbidity, eight (30.6%) patients in edema positive group suffered an early postoperative morbidity this is in comparison to four patients (21%) in the edema negative group. **Conclusions:** Our study shows that PTBE in meningiomas affects the surgical prognosis and confers a higher risk of morbidity and postoperative complications. Preoperative management of PTBE and immediate post-operative monitoring are important.

P.036

Securing the nasoseptal flap in endoscopic transsphenoidal surgery: no Foley catheter needed!

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Background: The nasoseptal flap, commonly used in endoscopic transsphenoidal surgical, is typically held in position for several days post-operatively by a nasal Foley catheter balloon. The purpose of this study is to describe our experience with an alternative technique to buttress the nasoseptal flap that renders the use of a Foley catheter unnecessary. **Methods:** A review of our Halifax Neuro-pituitary Program's database identified patients who underwent endoscopic transsphenoidal surgery for a pituitary macroadenoma with nasoseptal flap, secured with small rolls of Gelfoam™ rather than a nasal Foley catheter. Minimum follow-up clinical and MRI assessments: 3 months. **Results:** 69 patients (mean follow-up: 22 months) met the inclusion criteria: 53 non-functioning and 16 functioning pituitary adenomas. 36 patients had an intraoperative CSF leak: 29 high flow and 7 low flow leaks. 35 patients were repaired by a fat +/- fascia graft. One patient had a post-operative CSF leak repaired by subsequent surgery without the use of a Foley catheter. **Conclusions:** In our experience, 1 of the 69 (1.4%) patients required post-operative CSF leak repair, well within the incidence of 1 to 3% reported in the literature. Securing the nasoseptal flap can be achieved without the use of a nasal Foley catheter.

P.037

Disseminated leptomeningeal hemangioblastoma in a case of Von Hippel Lindau

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Background: Leptomeningeal dissemination of hemangioblastomas (HB), whether sporadic or associated with Von Hippel Lindau (VHL), are extremely rare. Very scanty literature is available. **Methods:** A 36 year old female with VHL and stable pancreatic, adrenal