

non-dominant MTLE, the smaller dominant HV at 2-3y period correlated with decline of verbal memory ( $p < 0.05$ ). **Conclusions:** Post-operative progression of non-epileptic hippocampal atrophy was found with significantly more pronounced in patients with older age at surgery and larger pre-operative non-epileptic hippocampus. After the epileptogenic hippocampus is resected, the remaining hippocampus alone might exhaust to maintain the memory, especially in elders.

## P.013

### Convulsive status epilepticus due to intracranial hypotension

GS Gilmour (Calgary) J Scott (Calgary) P Couillard (Calgary)\*

doi: 10.1017/cjn.2018.115

**Background:** Intracranial hypotension (IH) is typically characterized by an orthostatic headache. There have been limited case reports describing iatrogenic IH presenting with seizures. **Methods:** Case report. **Results:** A 71-year-old woman with chronic back pain developed convulsive status epilepticus (SE), characterized by generalized clonic seizures, immediately following scoliosis surgery. She had no history of seizures or seizure risk factors. Despite treatment with Midazolam, Phenytoin and Lacosamide, seizures recurred five times over three hours. Thus, Propofol and Midazolam infusions were initiated. An electroencephalogram revealed burst suppression and bilateral hemispheric epileptiform discharges. MRI brain was consistent with IH without cortical vein thrombosis. Fluid from the surgical drains was positive for Beta-2 transferrin, indicating cerebral spinal fluid. Her intracranial hypotension was likely due to an intraoperative dural tear causing SE. Over two weeks, she remained on bedrest, sedation was weaned, and Phenytoin and Lacosamide were tapered and discontinued. She had no further seizures. **Conclusions:** IH is an under recognized cause of seizure following spinal or cranial surgery, lumbar puncture, or spinal anaesthesia. Proposed mechanisms include traction on cortical structures, increased cerebral blood flow and cortical irritation secondary to subdural hygromas.

## P.014

### Survey of epilepsy and seizure awareness in Manitoba: an evaluation (SESAME)

EC Avery (Winnipeg) C MacDonald (Winnipeg) M Ng (Winnipeg)\* D Serletis (Winnipeg)

doi: 10.1017/cjn.2018.116

**Background:** Epilepsy/seizure awareness is improving across Canada. With the formation of a Comprehensive Epilepsy Program in Manitoba (including a new Pediatric Epilepsy Monitoring Unit), a provincial strategy has been proposed outlining a path towards improved access to epilepsy care. We now sought to qualify the current state of clinician knowledge and comfort towards diagnosis and management of this condition. **Methods:** A qualitative online survey, comprised of 36 short-answer questions, was delivered to primary care and specialist physicians in Manitoba. **Results:** 108 subjects responded, across varying medical disciplines. 101 (93.5%) have previously managed epilepsy patients, and 87 (80.6%) have previously ordered an EEG. A total of 63 (59.4%) have referred to a neurologist, with a lower proportion (30, 28.3%) referring specifically to an epileptologist. 36 respondents (33.3%) have heard of the ILAE guidelines, with 43 (63.2%) reporting refractory epilepsy to be

defined by the failure of 3 (or more) medications. 61 (56.5%) were unaware of invasive EEG techniques. Most (85, 78.7%) understood a role for surgery in treating epilepsy, with 12 (11.1%) unaware of surgical therapies beyond VNS. **Conclusions:** SESAME successfully identified strong awareness towards epilepsy, with small lapses in knowledge that will benefit from a formal provincial-wide educational curriculum.

## P.015

### Mesial Temporal Sclerosis is a rare occurrence in Intractable Pediatric Temporal Lobe Epilepsies

J Kassiri (Edmonton)\* T Rajapakse (Edmonton) L Schmitt (Edmonton) M Wheatley (Edmonton) B Sinclair (Edmonton)

doi: 10.1017/cjn.2018.117

**Background:** Temporal lobe epilepsy (TLE) accounts for approximately 20% of pediatric epilepsy cases. Of those, many are considered medically intractable and require surgical interventions. In this study, we hypothesized that mesial temporal sclerosis (MTS) was less common in patients who had undergone surgery for intractable pediatric TLE than in adult series. We further hypothesized that there was a radiological and pathological discordance in identifying the cause of pediatric TLE. **Methods:** We retrospectively reviewed the charts of pediatric patients with TLE who had undergone surgical treatments as part of the University of Alberta's Comprehensive Epilepsy Program between 1988 and 2018. Along with preoperative magnetic resonance imaging (MRI) reports, post-surgical pathology results and seizure outcomes were studied. **Results:** Of the 83 pediatric patients who had undergone temporal lobe epilepsy surgery, 28% had tumors, 22% had dual pathologies, 18% had MTS, 11% had focal cortical dysplasia, and 22% had other pathologies. In addition, for 36% of these patients, discordance between their pre-surgical MRI reports and post-surgical pathology reports were found. **Conclusions:** This was one of the largest retrospective cohort studies of pediatric patients who had undergone surgery for intractable TLE. This study showed that tumors, and not MTS, were the most common pathology in surgical pediatric TLE.

## P.016

### A novel de novo GABRA1 mutation linked to epileptic encephalopathy: pathophysiology and potential therapeutic options

M Chiu (Vancouver)\* Y Bai (Vancouver) EH Chan (Vancouver) L Huh (Vancouver) I Guella (Vancouver) MJ Farrer (Vancouver) M Connolly (Vancouver) L Liu (Vancouver) M Demos (Vancouver) Y Wang (Vancouver)

doi: 10.1017/cjn.2018.118

**Background:** Epileptic encephalopathy (EE) is a severe neurological disorder characterized by treatment-resistant seizures and poor neurodevelopmental outcomes. EE is associated with mutant genes, including those that encode for  $\gamma$ -aminobutyric acid type A (GABA) receptor subunits. We identified a novel *de novo* GABRA1 mutation in a patient with EE, characterized its impact on GABA receptor function, and sought potential therapeutic options. **Methods:** We described the clinical and electrophysiological features of a patient with a novel *de novo* GABRA1 (R214C) mutation; performed