

an Oxford 2b, GRADE C, level of evidence to support an increase in global CBF and rCBF with ketamine administration in both healthy volunteers and elective surgical patients without neurological illness.

## P.012

### Let There Be

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**Background:** In 2014, the Montreal Neurological Hospital reorganized its stroke unit, grouping together all strokes serviced by Neurology/Neurosurgery to ensure continuity of care. This unprecedented change created a new interdisciplinary /interdepartmental team which required a new form of communication to facilitate information dissemination and patient care in a timely manner. **Method:** Unlike typical rounds, the purpose of the daily huddle is to briefly set the patients' goals of the day. The huddles are attended by all interdisciplinary team members, lasting approximately 30 minutes. The Assistant Nurse Manager leads the huddle in the morning in the nursing station to discuss the main issues. The huddle outcomes were assessed by: Length of stay (LOS), turnaround time to implement discharge, patient/family and team satisfaction. **Results:** Length of stay decreased by 4 days, delay to application to disposition was <24 hours. Interdepartmental team stated satisfaction in sharing their expertise in their different domains. Concerns were expressed if the huddle LOS exceeded 30 minutes. Eighty (80%) percent of patients/families experienced satisfaction that information provided was given in a caring/timely manner. **Conclusion:** Daily huddles improved LOS and team learning was enhanced. However, huddles need to be more concise.

## P.013

### Postconcussion syndrome: demography and predictors in 221 patients

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**Background:** Most individuals recover from a concussion within 7-10 days. However recovery may be very prolonged. Individuals who do not recover within the usual time are said to have postconcussion syndrome (PCS). The objective of this study was to examine the demography and predictors of PCS. **Methods:** This was a retrospective cohort study of 284 consecutive concussed patients 221 of whom had PCS on the basis of at least three symptoms persisting at least 1 month. A uniform, internationally accepted definition of concussion was used. **Results:** The 221 cases showed considerable heterogeneity in clinical features of PCS. They averaged 3.3 concussions with a range of 0 to 12+ concussions, and 62.4% occurred during sports and recreation. The median duration of PCS was 7 months at the time of examination, with 11.8% lasting more than 2 years. Surprisingly, 23.1% with PCS had only 1 concussion. The average age was 27 years (range 10-74). The average number of persistent symptoms was 8.1. 26.2% had a previous psychiatric condition, ADD/ADHD, a learning disability, or previous migraine headaches. The prevalence

of arachnoid cysts and Chiari malformation in PCS exceeded the general population. **Conclusions:** In most of our cases, PCS was disabling, and lasted for months or years.

## P.014

### Real-time tracking of functional performance using accelerometers on the acute-stroke unit: proof-of-concept study

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**Background:** Acute stroke care pathways are increasingly implemented to improve integration of best-practices, but evidence for impact on functional outcomes is not strong. Elements missing from care-pathways are those directly targeting improvement in function: sit-to-stand and time spent walking. The Stroke Team uses care-pathways to track functional capacity, what the patient can and cannot do, but performance on these key outcomes is difficult to track as the patient is observed by multiple people throughout the day. The purpose of this study is to demonstrate the feasibility and added-value of real-time tracking of patients' mobility. **Methods:** A chart review was carried out to identify the extent to which functional capacity and performance is tracked routinely by the Stroke Team. Ethical approval was gained for routine use of accelerometers to be affixed to the unaffected thigh. **Results:** Swallowing, bladder control, toileting, and feeding were consistently tracked for ~90% of patients. Bed-mobility and capacity to transfer rarely tracked (<12%). Capacity for walking and sit-to-stand was noted but never frequency (performance). **Conclusion:** Our proof-of concept study will test 30 patients over the next 2 months and link real time performance on transitions and walking to stroke severity and outcome.

## NEUROLOGY (EPILEPSY AND EEG)

## P.015

### Delayed response to corpus callosotomy

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**Background:** Corpus callosotomy is a palliative surgical procedure involving partial or complete disconnection of the corpus callosum. It has been shown to improve outcomes of seizure control with in six months of the procedure. Here, we discuss a challenging case of intractable generalized epilepsy with a delayed response to corpus callosotomy. **Methods:** This report describes a 23 year old female with onset of seizures since age 16. Patient was followed over 7 year period for evolution of her seizures and treatment. **Results:** Patient experienced three different types of seizures including atypical absences, drop attacks and grand mal seizures. The most disabling type of seizures were the drop attacks associated with injuries. MRI showed bilateral subependymal heterotopia. Multiple EEG telemetry studies showed generalized spike waves without clear lateralization or focalization. Patient failed seven different antiepileptic medications,

ketogenic diet and vagal nerve stimulation. Treatment with anterior corpus callosotomy started to show improvements at 18-24 months after the procedure with less severe drop attacks. *Conclusions:* Corpus callosotomy usually works few months after surgery. This is a very atypical case in whom callosotomy had a delayed response. This is rarely reported and we do not have a clear explanation. Delayed re-organization of the pathways associated with the seizure initiation may be a potential explanation.

## P.016

### Understanding the natural history of adult temporal lobe epilepsy

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Temporal lobe epilepsy (TLE) is the most common type of epilepsy in adults. The literature in this field supports the notion that many patients become candidates for surgery and little is known about the group of patients who do not require surgical treatment. This is a retrospective cohort study that included all patients with TLE assessed and followed by the Saskatchewan Epilepsy Program since 2007. Mild course was defined as patients not having seizures, using or not AEDs at last follow up. Severe course of TLE was considered in patients with continuous seizures and patients who had epilepsy surgery. Descriptive statistics were used. OR and CI were calculated. One hundred and fifty nine patients were included. Age of patients at last follow up was 46.04 + 14.4 (range 19-88) years. Mean follow up of patients was 43.46 + 22.6 (6 to 84) months. Fourth six patients (29%) were seizure-free with AEDS (mild course TLE) and 113 (61%) had severe course of TLE. Patients with mild course of TLE were older ( $p < 0.002$ ), with a late onset of epilepsy ( $p < 0.001$ ) and their epilepsy evolution was shorter ( $p < 0.001$ ). Our study shows that not all the patients with TLE require surgery and that a fair percentage of patients can be controlled with medication.

## P.017

### EEG in asymptomatic relatives of idiopathic epilepsy; a prospective study

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*Introduction:* The mainstay of diagnosis in Idiopathic Epilepsies (IE) is the electroencephalogram (EEG). The characteristic EEG of each syndrome is an electrographic endophenotype of the larger clinical phenotype of each and more directly associated with potential gene defects than the full phenotype. Endophenotypes represents primary abnormalities elicited by the gene defect, which, in some patients, blossom into full seizures. Revealing the percentage of abnormal EEGs in asymptomatic relative of patients with IE may help to describe the mode of inheritance that would help the ongoing genetics studies to discover the pathologic gene defect. *Method:* This is a prospective cohort study to identify the percentage of abnormal EEG in asymptomatic first-degree relatives of patients with IE *Results:* 20 out of 141 EEGs (14%) of

first-degree relatives were abnormal. The abnormalities included generalized polyspikes and waves, generalized 3-Hz spike and waves or centro-temporal spikes in 50% of the abnormal EEGs. 50% of the abnormalities were nonspecific. *Conclusion:* These results may indicate that the EEG endophenotypes in IEs do not follow a Mendelian pattern of inheritance. Nevertheless, the EEG endophenotype is relatively common and thus genetically simpler than the full epilepsy, which will aid in gene identification

## P.018

### The term “epilepsy in the elderly” is conceptually irrelevant and needs to be replaced by an etiology-driven classification system in the aging brain

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*Objective:* “Epilepsy in the elderly (EE)” is considered a homogeneous, benign syndrome in patients aged > 60 years, with cerebrovascular disease as the most frequent etiology. We challenge this concept by comparing EE and middle-aged adults with epilepsy (MAE). *Methods:* We compared: 1) seizure dynamics, 2) MRI lesions, 3) EEG findings and 4) treatment course in EE and MAE at the Halifax First Seizure Clinic. *Results:* 48 EE patients aged > 60.2 years (median 66.9 years). 31 MAE patients aged 50.2 – 59.6 years (median 55.1 years). Seizure dynamics in EE/MAE included first seizure in 50/54.8%, new onset epilepsy (new seizures within 12 months) in 43.8/35.5%, newly diagnosed epilepsy (seizures for >> 12 months) in 9.6/6.3%. First seizure evolved into new onset epilepsy in 12.5/3.2%. MRI in EE/MAE was normal in 22.5/27.6% or showed microangiopathy (25/38.5%), atrophy (10/15.4%), tumors (7.5/11.5%), vascular malformations (7.5/3.8%), hippocampal pathologies (0/3.8%), infarcts (12.5/0%). EEG in EE/MAE was normal in 64.4/65.5% or showed diffuse (6.6/3.5%) or focal slowing (8.8/7%), generalized (4.3/13.7%) or focal (15.4/10.4%) epileptiform activity. At 12 months, 87% of EE and 93.8% of MAE were seizure-free. *Conclusions:* EE and MAE show similar heterogeneity. We propose an etiology-driven classification of epilepsy syndromes in the aging brain.

## P.019

### Progressive contralateral hippocampal atrophy following Temporal Lobe Epilepsy Surgery (TLS)

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*Background:* Temporal Lobe Epilepsy is associated with bilateral gray (GM) and white matter (WM) loss. After surgical treatment progressive bilateral temporal and extra-temporal WM change occur, however, less is known regarding post-operative GM change. We set out to measure contralateral hippocampal volume (CHV) following TLS. *Methods:* 1.5T-3D-1mm-isotropic-MPRAGE scans in 26 TLE patients and 3 controls in two groups: longitudinal (n=10)(imaged POD1,2,3,6,60,120 and >360d) and single post-operative scan (n=16). Manual volumetry protocols. *Results:* We find significant