CHV atrophy at delayed scan relative to baseline (mean atrophy 26.8%). In the longitudinal group there is significant and progressive atrophy from baseline to POD4-8 (72.6+/-6.5%), POD60-360 (69.7+/-12.3%) and >360 (58.5+/-10.6%). No significant atrophy in either the control group HV or contralateral CV over time. No significant difference in mean HV at the most delayed exam for surgery type (p=0.13) or side (p=0.24). *Conclusions:* We find a statistically significant CHV atrophy following surgery which is progressive over time. Our longitudinal within-subject design describes the time course and extent more fully than previous work. Caudate analysis indicates that early CHV atrophy is not due to global atrophy following brain surgery but rather may be due to deafferentation and deefferentation. Finally, we find no significant difference in atrophy when analyzed by surgical approach or surgical side.

P.020

Marijuana use in intractable epilepsy

*A Massot Tarrus (London) E Martinez Lizana (London) R McLachlan (London)**

doi: 10.1017/cjn.2015.131

Background: In Canada, marijuana is legal for those with seizures. We determined the prevalence of marijuana use in intractable epilepsy patients and assessed the perceived effects. *Methods:* Information about marijuana use was collected over 12 months from consecutive adult patients admitted to an 8 bed Epilepsy Monitoring Unit using a 27 item self-administered questionnaire. Patients unable to understand and give consent for participation were excluded. *Results:* 215 of 310 patients median age 36 (interquartile range 27-49) years, 57% female had proven epilepsy. Median duration of seizures was 12 years (interquartile range 5-24) occurring daily or weekly in 47%. 37% of patients used marijuana over the previous year, 85% by smoking and 56% on a daily basis. Mean dose was 1 gm/day. Another 19% had used it previously. Use of cigarettes was 27%, alcohol, 40% and street drugs 2%. Seizure improvement was perceived by 91%, decreased stress by 99%, improved sleep by 98% and reduction in antiepileptic drug side effects by 88%. Minor adverse effects of marijuana occurred in 13% including seizures worse in 3%. *Conclusions:* Patients investigated for intractable epilepsy use marijuana more than the general population and perceive improved seizure control, lower stress, better sleep and reduced side effects from antiseizure drugs.

P.021

Contactin-associated protein 2 (Caspr2) antibodies associated with refractory temporal seizures, rapid cognitive decline, and emotional lability

*M Farzad (Saskatoon) R Savard (Saskatoon)**

doi: 10.1017/cjn.2015.132

Background: Caspr2 is a transmembrane protein facilitating intercellular communication. It is found primarily in the central nervous system, specifically cerebellum and hippocampus. Anti-Caspr2 antibodies, more commonly seen in men (M/F: 4), also bind voltage-gated potassium channels. The antibodies are associated with limbic encephalitis, seizures, Morvan's syndrome, peripheral nerve hyperexcitability, and cerebellar ataxia. Malignancy exists in 20% of cases. *Methods:* Case report and review of literature. *Results:* A 71-year-old man presented with subacute onset refractory seizures failing several anti-convulsants, emotional lability, and rapid decline in memory and executive function. EEG showed an electrographic seizure over the left hemisphere. MRI brain demonstrated mild diffuse cerebral atrophy, chronic ischemic changes, and mild diffusion restriction in the medial frontal lobes. Cerebrospinal fluid was normal. Serum Antithyroid peroxidase and antithyroglobulin antibodies were negative. TSH was slightly elevated and eltroxin didn't help. Anti-Caspr2 antibodies were highly positive. EMG ruled out neuromyotonia. Body CT and PET scans indicated no malignancy. Treatment with IVIG stopped the seizures and cognition dramatically improved. *Conclusions:* Recognizing anti-Caspr2 antibody-associated encephalitis in elderly males with new onset refractory epilepsy and rapid cognitive decline is important for timely initiation of immunomodulation to avoid permanent deficits. Rapid executive dysfunction was unique in this case.

P.022

fMRI for language: how can it replace the Wada test?

*S Mousavi (London) A Massot Tarrus (London) F Bihari (London) S Hayman Abello (London) B Hayman Abello (London) S Mirsattari (London)**

doi: 10.1017/cjn.2015.133

Background: The goal of our project is to assess the feasibility of replacing the invasive Wada test considered as the gold standard with non-invasive fMRI test for assessment of language dominance preoperatively. *Methods:* fMRI test with three language paradigm tasks (verb generation, sentence completion and naming) were conducted on our cohort of patients. fMRI laterality indices (LI) were then defined as a ratio (L-R)/(L+R) between the number of activated voxels in the left and right ROIs for Anterior Language Area (ALA) and Posterior Language Area (PLA). fMRI results were divided into the right (LI < -0.2), left (LI > 0.2) or bilateral (-0.2 < LI <0.2) hemispheric language dominance and compared to the results of the Wada test. *Results:* 28 patients were studied. The concordance rate between Wada and fMRI tests for the ALA and PLA was 68.2% and 52.2% for sentence completion; 56% and 52% for verb generation and 25% and 35% for naming paradigm, respectively. *Conclusions:* Sentence completion and verb generation fMRI paradigms showed higher concordance with Wada test than naming paradigm. The higher discordance between the Wada test and fMRI was related to bilateral results suggestive of less stringent thresholds used for either test.

P.023

Infraslow Status Epilepticus: A new form of subclinical status epilepticus recorded in a child with Sturge Weber Syndrome

*LE Bello-Espinosa (Calgary)**

doi: 10.1017/cjn.2015.134

Background: Analysis of infraslow EEG activity (ISA) has shown potential in the evaluation of patients with epilepsy and in differentiating between focal and generalized epilepsies. The purpose of this report is to present a girl with Sturge-Weber Syndrome (SWS) who was identified to have infraslow status epilepticus (ISSE), which successfully resolved after Midazolam administration *Methods:* The continuous EEG recording of a 5-yr-old girl with known Structural