a 19 yo male with idiopathic LETM remained quadraparetic and ventilator dependent with active MRIs despite multiple courses of intravenous methylprednisolone, plasma exchanges, and in the NMOSD patient, IVIg and a 4-week course of rituximab. Both patients ultimately improved significantly and are now ambulatory with subsequent cyclophosphamide induction. *Conclusions:* In patients with severe LETM of presumed immune origin, who fail to respond to corticosteroids and plasma exchange, cyclophosphamide induction should be considered. This agent provides a more robust immunosuppressive response and can be induced rapidly. Cyclophosphamide effects and supportive evidence are further discussed.

P.050

Autoimmune encephalitis associated with GAD65 antibodies: brief review of the relevant literature

M Gagnon (Quebec) M Savard (Quebec)*

doi: 10.1017/cjn.2016.154

Background: Recently, many cases of autoimmune encephalitis with positive GAD65 (*Glutamic acid decarboxylase*) antibodies have been described in the literature. However, it remains an understudied topic. *Methods:* We conducted a search on reported cases of anti-GAD65 encephalitis. Specific variables were identified as general characteristics, clinical manifestations, MRI and EEG findings, concomitant systemic autoimmune disorders and cancer, and outcome and autoantibodies findings. *Results:* We identified a total of 58 cases, from one to 70 years old. It most frequently presented with seizures (97%) and memory impairment (59%). It commonly occurred in association with systemic autoimmune disease, particularly diabetes (28%). Brain MRI was usually abnormal (78%); involvement of temporal lobes was more frequent than multifocal abnormalities (59% vs 16%). GAD65 antibodies were reported positive in CSF and/or serum (31% in serum only). Other antibodies such as GABABR, GABAAR and VGKC were concurrently reported positive in some cases (19%). However, we found that the vast majority of cases were not tested for all those cell-surface antibodies. Overall, no distinctive pattern of clinical and paraclinical findings was found. Persistent impairments were common. Optimal treatment remained undefined. *Conclusions:* Prospective studies recruiting patients with autoimmune encephalitis are needed to better elucidate the contributions of GAD65 autoantibodies, and to evaluate treatment and outcomes in this population.

P.051

Patient-reported adverse events on Multiple Sclerosis disease-modifying therapies in an urban tertiary MS clinic

ZJ Liao (Toronto) L Lee (Toronto) K Carr (Toronto)*

doi: 10.1017/cjn.2016.155

Background: Disease-modifying therapies (DMT) have been shown to reduce relapses and delay disability in individuals with relapsing-remitting multiple sclerosis (MS). However, these medications can cause adverse events (AE) leading to poor adherence. To better understand their clinical utility, this study examined real-life experiences with DMT in a tertiary MS clinic. *Methods:* A retrospective chart review (1999-2015) was conducted to evaluate the prevalence of AE and discontinuation rates of Health Canada approved DMT. *Results:* 445 MS patients who have used at least one DMT in their lifetime were reviewed. Among first-line injectable therapies, interferon beta (IFNβ) 1-α IM users (49.6%) were most likely to report an AE. Flu-like reactions and injection site reactions were the most commonly reported AE. Among first-line oral therapies, BG-12 users (58.5%) were most likely to report an AE. The most common AE were flushing and gastrointestinal upset. DMT that were most frequently discontinued as a result of AE were IFNβ 1-α SC (39.3%), IFNβ 1-α IM (36.8%) and BG-12 (34.6%). *Conclusions:* The prevalence of AE and discontinuation rate were congruent. In comparison with recent literature, this study demonstrated lower prevalence of AE but equivocal or higher discontinuation rates. This discrepancy could represent a more realistic depiction of the impact that DMT AE have on patients.

P.052

Late-onset adrenoleukodystrophy mimicking primary progressive multiple sclerosis

AJ Schabas (Vancouver) A Sayao (Vancouer)*

doi: 10.1017/cjn.2016.156

Background: Adrenoleukodystrophy (ALD) is a peroxisomal disorder that leads to the accumulation of very long chain fatty acids in the body. Younger males typically present with a catastrophic cerebral demyelinating disease, while adult males tend to develop a progressive myelopathy and neuropathy. *Methods:* Case presentations and literature review. *Results: Case1:* A 58-year-old male with a three-year history of unsteady gait. His MRI showed multiple T2-hyperintensities most prominently in the posterior corpus collosum (which progressed over time) as well as spinal cord atrophy. Primary progressive multiple sclerosis (PPMS) was suspected. *Case 2:* The patient's bother, a 49-year-old, had a ten-year history of difficulty walking. MRI findings included a single large T2 hyper-intensity spanning the anterior aspect of the corpus collosum and an atrophic spinal cord. Given the family history, both brothers were investigated for and diagnosed with ALD. *Conclusions:* Both cases are of males presenting with a progressive myelopathy in middle age. In the first case, the history, physical exam, and imaging findings were most consistent with PPMS. However, the second case was less typical for MS prompting further investigations. These cases highlight the need to have a broad differential when confronted with atypical cases of MS and reminds the clinician of the phenotypic variability of ADL.

Neurocritical Care/ Neuro Trauma

P.054

The use of robotic technology to define post-operative neurological dysfunction in patients undergoing coronary bypass surgery: a feasibility study

*AL Venters (Kingston) T Saha (Kingston) A Hamilton (Kingston) D Petsikas (Kingston) S Scott (Kingston) GJ Boyd (Kingston)**

doi: 10.1017/cjn.2016.158

Background: Cognitive dysfunction following coronary artery bypass surgery is a regular occurrence, but its cause is still unknown.