P.007

Autoimmune Encephalitis Timing and Incidence: the Manitoba Experience

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Background: Early treatment of autoimmune encephalitis (AE) can improve outcomes. Despite expert recommendation, it remains unclear if suspected AE patients consistently receive empiric treatments prior to availability of antibody results. **Methods:** Retrospective chart review of patients referred for AE testing in Manitoba. Primary outcomes were the proportion of patients treated empirically prior to the availability of antibody results. Incidence, clinical presentation, investigations, complications, mortality rates, and hospital course were secondary outcome measures. **Results:** We identified 151 patients from 2012-2018. 43 patients met inclusion criteria. The annual incidence of AE in Manitoba was 0.37/100,000. 28/43 (65%) patients were treated prior to availability of antibody results ("Early group"). 15/43 (35%) patients did not receive treatment ("Late group"). Significantly more Early group patients had repeat immunotherapy (p=0.001), abnormal MRI (p=0.027), and investigations for malignancy (p=0.015). Durations of hospital and intensive care admission, complication rates, and mortality rates were not different between the two groups. **Conclusions:** This is the first-ever AE incidence, timing, and management study of a comprehensive Canadian geopolitical and medical catchment area. Just over 1/3 of suspected AE over seven years were not treated prior to antibody results becoming available. Patients treated earlier did not experience greater complication rates.

Dementia and Cognitive Disorders

P.008

Surgical Procedures are Common in Patients with Prion Disease

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Background: Surgical instruments used in patients with prion disease must be decontaminated or decommissioned to prevent iatrogenic transmission. This is only done when the diagnosis of prion disease is known. To assess the potential for iatrogenic transmission, we determined the prevalence of surgeries and use of precautions in patients with prion disease at two academic medical centers. **Methods:** Clinical details, results of investigations, and surgical interventions (performed within one-year of symptom onset) were extracted for patients with probable/definite prion disease at Mayo Clinic (n=107; 1-2014 to 12-2020) and Washington University School of Medicine (n=14; 2-2015 to 12-2019). **Results:** Twenty-six patients (21.5%) underwent 32 procedures, including 2 high-risk procedures involving the brain. Most procedures (17/32, 53%) occurred in the 1-year period preceding the onset of symptoms attributed to CJD. History of arthritis (OR: 7.4, 95%CI: 1.05-51.8), lack of behavioral symptoms (OR: 3.0, 95%CI 0.97-9.1), and greater time (months) from symptom onset to first MRI (OR: 1.1, 95%CI 1.03-1.2) were independently associated with odds of undergoing an invasive procedure. Prion disease precautions were observed in one case (diagnostic brain biopsy). **Conclusions:** Procedures were common in patients with diagnosis of prion disease; precautions were not. Coordinated approaches to screening and reporting are needed to prevent iatrogenic transmission.

P.009

Improving Detection of Creutzfeldt-Jakob Disease Mimics in Clinical Practice

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Background: Assays capable of detecting prions in CSF (e.g., RT-QuIC) have greatly improved the antemortem diagnosis of Creutzfeldt-Jakob disease (CJD) yet take time to conduct and are not widely accessible. There is a need to identify clinical features and common tests that identify mimics at presentation. **Methods:** Mimics were identified within longitudinal studies of rapidly progressive dementia at study sites. Mimics met clinical criteria for probable CJD but did not have CJD. Clinical features were compared between mimics and patients with CJD assessed at Mayo Clinic Enterprise (n=79) and Washington University in St. Louis (n=10; Jan-2014 to Oct-2020). **Results:** Mimics (10/155; 6.5%) were diagnosed with autoimmune encephalitis (n=7), neurosarcoidosis, frontotemporal lobar degeneration with motor neuron disease, and unknown dementia. Age-at-symptom onset, gender, presenting symptoms, and EEG and MRI findings were similar between mimics and CJD patients. Focal motor abnormalities (49/93, 10/10), elevations in CSF leukocytosis (4/92, 5/10) and protein (39/92, 9/10) were more common in mimics ($p<0.01$). Neural-specific autoantibodies associated with autoimmune encephalitis were detected within the serum (4/9) and CSF (5/10) of mimics, but not CJD cases. **Conclusions:** Autoimmune encephalitis, neurosarcoidosis and neurodegenerative diseases may mimic CJD at presentation and should be considered in patients with early motor dysfunction and abnormal CSF studies.

P.011

Standardized Processes for Addressing Driving Cessation in the Memory Clinic

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Background: Discussions around driving cessation between clinicians and dementia patients are challenging. Patients view giving up their license as losing their independence. We sought to