of Ramsay Hunt syndrome with brainstem and/or cerebellar involvement is important for diagnosis and for consideration of antiviral and prednisone treatment.

P.031

Redefining true leukocytosis in the traumatic lumbar puncture

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doi: 10.1017/cjn.2015.142

Objective: To compare and contrast the observed versus predicted number of white blood cells (WBCs) in a traumatic cerebrospinal fluid (CSF) sample in children and adults. *Background:* Clinicians rely on a correction formula (Predicted_CSF_WBC=CSF_RBC×Blood_WBC/Blood_RBC) to determine if a true CSF leukocytosis exists. This formula may overestimate true CSF leukocytosis and lead to delayed treatment of meningitis. *Methods:* A retrospective review of CSF data of 105 patients who met the following criteria: 1) CSF from lumbar puncture (LP) contained≥1000 RBC/mm^3 and 2) CBC performed≤24 hours of LP; 3) negative CSF cultures. Regression analysis was performed to determine the relationship between actual and predicted CSF WBC values. *Results:* Regression modeling indicated a discrepancy in the predicted versus actual WBC values. Mean adult age was 48.9 years; CSF profile (mean WBC 146.3×10^6/L; RBC 17374×10^6/L; glucose 4.1 mmol/L; protein 1.4 g/L); mean peripheral WBC was 8.2×10^9/L; RBC 3.9×10^9/L. Mean pediatric age was 1.4 years; CSF profile (mean WBC 171.8x10^6/L; RBC 41763x10^6/L; glucose 2.7 mmol/L; protein 1.7 g/L); mean peripheral WBC was 12×10^9/L; RBC 7.2×10^9/L. Observed LP CSF WBC value was 47% of predicted (r^2=0.54 pediatric cohort; r^2=0.91 adults). *Conclusion:* True CSF leukocytosis could be missed in a traumatic CSF sample based on a currently applied correction formula. We propose the following modifcation: Observed_CSF_WBC=0.5x[CSF_RBC×Blood_WBC/Blood_RBC].

P.032

Prognostic value of 8F-Florbetapir scan: a 36-month follow up analysis using ADNI data

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doi: 10.1017/cjn.2015.143

Background: The Alzheimer's Disease Neuroimaging Initiative (ADNI) provides an opportunity to investigate the relationship between β-Amyloid neuropathology and patients' long-term cognitive function change. We examined baseline 18F-florbetapir PET amyloid imaging status and 36-months' change from baseline in cognitive performance in subjects with mild cognitive impairment (MCI). *Method:* The study included all ADNI subjects who underwent PET-imaging with 18F-florbetapir and had a clinical diagnosis of MCI at the visit closest to florbetapir imaging. β-Amyloid deposition was measured by florbetapir standard uptake value ratio (SUVR), and dichotomized as Aβ+(SUVR>1.1) or Aβ–(SUVR≤1.1). Cognitive scores, including ADAS11, MMSE and CDR sum of boxes (CDR-SB), were evaluated for up to 36 months. *Results:* Of 478 MCI-subjects who had at least one florbetapir scan, 153 had a cognitive evaluation at 36-month follow-up. Of those, 79 were Aβ– and 74 Aβ+. At 36-months, the Aβ+ vs. Aβ– group scores changed from baseline (LS means 4.03 vs. 0.26 for ADAS11; -2.61 vs.-0.40 for MMSE; 1.53 vs. -0.11 for CDR-SB [p< 0.0001 all comparisons]). Generalised estimating equation analysis on clinically significant cognitive change showed a marginal Odds Ratio=2.18 (95% CI: 1.47–3.21) for Aβ+ vs. Aβ– groups. *Conclusion:* MCI subjects with higher β-Amyloid deposition had greater deterioration in cognitive function over 36 months while subjects with no β-Amyloid accumulation tended to be stable.

P.033

Dancing eyes: a case of opsoclonus, tremor and truncal ataxia secondary to West Nile encephalitis

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doi: 10.1017/cjn.2015.144

Background: Opsoclonus can result from paraneoplastic, parainfectious, autoimmune, ischemic or toxic etiologies. Neuroinvasive complications develop in less than one percent of individuals infected with West Nile Virus. *Methods:* Case report. *Results:* A 63-year-old female presented with subacute disorientation, dizziness, oscillopsia, and unsteady gait, associated with fever. Examination demonstrated opsoclonus, bilateral upper extremity postural and action tremor and truncal ataxia. MRI of the brain was normal. CT of the body showed no evidence of neoplasia. Vasculitic and paraneoplastic panels were negative. An extensive infectious work-up was only positive for West Nile IgM antibodies. She was treated with clonazepam and received a five-day-course of IVIG. Her symptoms improved after treatment and she continued to demonstrate gradual recovery during the months following her discharge. *Conclusions:* There are only a few published case reports of WNV-associated opsoclonus, and our patient appears to be the oldest reported with this constellation of neurological symptoms. Even though treatment for WNV is mostly supportive, this case demonstrates the importance of a thorough work-up in patients of similar presentations to determine the etiology and to guide early immunomodulation in selected cases. Video available.

Neurology (Movement)

P.035

Association of restless legs syndrome, pain, and mood disorders in Parkinson's disease

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doi: 10.1017/cjn.2015.146

The objectives of the study were to analyze the association between Parkinson's disease and restless legs syndrome, and explore the relationship between mood disorder comorbidity (anxiety and depression), pain, and restless legs syndrome. This study included 123 Parkinson's disease patients and 123 healthy controls matched for age and gender, and evaluated for anxiety severity, depression severity, pain severity, pain interference, pain disability, and restless legs syndrome prevalence. This was performed using semi-structured