local spread of the primary infection, thrombophlebitis of the internal jugular vein, and septic metastases resulting in significant multisystem complications. Methods: A case report. Results: A previously healthy 63 year-old female presented to our emergency room with four-day history of sore throat, headache, fever and malaise. Initial examination revealed evidence of left tonsillar swelling and cervical lymphadenopathy. The patient rapidly deteriorated within hours of presentation and developed septic shock that was complicated by an acute kidney injury and disseminated intravascular coagulation (DIC). CT of the head and neck revealed a deep abscess within the left masticular triangle extending to surrounding soft tissue as well as C1-C3 epidural space. An extensive bilateral internal jugular vein thrombosis was noted; extending into the sigmoid and cavernous sinuses bilaterally. A thrombosis of the superior sagittal sinus and parafalcine subdural hematoma were also demonstrated. Blood cultures grew Group C Streptococcus. As the deep abscess was not amenable to surgical drainage, the patient was treated with broad-spectrum IV antibiotics. Anticoagulation was also commenced after management and resolution of the DIC. Conclusions: Lemierre's syndrome remains relevant nowadays and awareness of its potential neurological complications is warranted.

## P.032

## Development of a new instrument to discriminate orthostatic from non-orthostatic symptoms

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Background: Orthostatic symptoms including dizziness, lightheadedness and syncope can be major causes of disability in patients with dysautonomia. Currently there is no validated tool capable of discriminating orthostatic from non-orthostatic constitutional symptoms. Therefore, we developed the Orthostatic Discriminant and Severity Scale (ODSS) to help make this distinction. Objective: Demonstrate validity and reliability of the ODSS. Methods: Convergent and clinical validity were assessed by correlating Orthostatic scores with previously validated tools (Autonomic Symptom Profile (ASP), composite scores of the Orthostatic Hypotension Questionnaire and the total Composite Autonomic Severity Score (tCASS), respectively). Test-retest reliability was calculated using an intra-class correlation coefficient. Results: Orthostatic scores from 23 controls and 5 patients were highly correlated with both the Orthostatic Intolerance index of the ASP (r=0.724;p<0.01) and the composite OHDAS and OHSAS (r=0.552;p<0.01 and r=0.753;p<0.01, respectively), indicating good convergent validity. Orthostatic scores were significantly correlated with tCASS (r=0.568;p<0.01), and the systolic blood pressure change during head-up tilt (r=-0.472;p=0.013). In addition, patients with Neurogenic Orthostatic Hypotension had significantly higher Orthostatic scores than controls (p<0.01) indicating good clinical validity. Test-retest reliability was strong (r=0.954;p<0.01) with an internal consistency of 0.978. Conclusions: Our results, though preliminary, provide empiral evidence that the ODSS is capable of producing a valid and reliable orthostatic score.

### P.033

#### Novel presentation of NMDA receptor encephalitis

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Background: NMDA receptor encephalitis (NMDARE) is associated with pre-existing psychiatric symptoms and seizure disorders. It is not typically associated with elevated ICP. Diagnostically, EEG findings in NMDARE are characteristic as are the pathological features of ovarian teratomas associated with this disease. We report a patient who tested positive for NMDARE however presented with features not known to be associated with the disease including elevated ICP, atypical EEG findings and grossly atypical features on pathological section. Results: A 26 year old woman presented with psychiatric symptoms and status epilepticus. On examination, she was found to have papilledema and eleveated ICP on measurement. Her imaging and EEG demonstrated atypical findings, not consistent with NMDARE. CT scan of the abdomen demonstrated an adnexal mass. CSF studies eventually tested positive for NMDARE and following removal of her ovarian teratoma, the pathology demonstrated atypical findings for lesions associated with NMDARE classically. Conclusions: NMDARE is a new entity, which has historically shown a typical clinical course. Our case demonstrates a previously undescribed presentation of NMDARE with elevated ICP, atypical EEG findings and unique pathology of the associated ovarian teratoma.

### P.034

# Eye movement assessment and diffusion tensor imaging in patients with post concussion syndrome

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Background: Post concussion syndrome (PCS) can affect up to 30% of patients with concussion. Biomarkers of this condition would be beneficial for diagnosis and management. We hypothesized that eye tracking parameters would correlate with microstructural changes of white matter integrity, as measured by diffusion tensor imaging (DTI), in patients with PCS. Methods: Sixty patients with PCS and at least 2 concussions participated in our prospective study. Attention and executive function were tested using Visual Attention Scanning Technology (VAST). In a matching task, the normalized number of visits to master image before making the first selection is used as a surrogate of working memory. We related performance on VAST to white matter integrity using Tract-Based Spatial Statistics of diffusion tensor imaging data. Results: 60 participants (mean age 34.3 years, SD 13.8) had a mean of 4 concussions. There were negative correlations between fractional anisotropy (FA) of the genu, body, and splenium of the corpus callosum and normalized number of visits to master image before first selection (r=-0.432, p=0.001; r=-0.504, p<0.001; and r=-0.388, p=0.002; respectively). A negative correlation was also seen between right cingulum FA and the global processing index (r=-0.349, p=0.006). Conclusions: Impaired performance