

readily available. An ‘Omnipaque 350’ (iohexol) contrast agent was used for the second scan, which demonstrated features suggestive of occlusive thrombosis of the bilateral superior ophthalmic veins, bilateral cavernous sinuses and right superior petrosal sinus. Further investigations resulted in the diagnosis of a septic venous thrombosis, provoked in the setting of a complicated sinusitis.

Conclusion Interestingly, two separate CT venograms with different contrast agents, undertaken on the same day for the same patient, yielded different results. The presence of other variables precludes the ability to comment on the superiority of either agent. The case exemplifies the notion that diagnostic imaging should always be guided by a detailed history and examination and also raises the discussion point of whether more strict or uniform protocols for contrast should be developed for radiology investigations.

2799

A LONGITUDINAL STUDY OF PATIENTS WITH CHRONIC INFLAMMATORY DEMYELINATING POLYNEUROPATHY (CIDP): IDENTIFYING ULTRASONOGRAPHIC FEATURES FOR PROGNOSIS

¹Nicholas Crump*, ²Richard Macdonell. ¹Departments of Medicine and Neurology, University of Melbourne, Austin Campus, Heidelberg, VIC, Australia; ²Austin Health, Heidelberg, VIC, Australia

10.1136/bmjno-2023-ANZAN.152

Objectives Diagnosis and treatment monitoring in CIDP is primarily based on clinical parameters. High-frequency ultrasound reflects nerve pathophysiology non-invasively and painlessly, and has been demonstrated as a useful additional diagnostic tool in CIDP. However, correlations with disease state and response to treatment have been mixed. This prospective 12-month study aimed to identify potentially useful prognostic and treatment-related biomarkers utilising neuromuscular ultrasound.

Methods We recruited 35 patients with CIDP and other immune-mediated neuropathies who were currently or about to commence treatment. 32 participants completed 12 months of follow-up, with standardised clinical and ultrasonographic assessment at baseline, 3- and 12 months. Our protocol included bilateral, whole-length assessment of the median and ulnar nerves, with unilateral assessment of other nerves, measuring cross-sectional area (CSA), echogenicity, vascularity and morphological findings.

Results As with our previous retrospective and cross-sectional studies, nerve size variability was demonstrated in nearly all CIDP participants, particularly nerve enlargements in proximal upper limb nerves. However, nerve size parameters correlated poorly with clinical state or change over time. By contrast, other morphological findings, including changes in echogenicity and fascicular appearance, demonstrated suggestive correlations with remaining stable on weaning treatment, as well as in participants who demonstrated clinical improvement. The most promising parameters will be presented.

Conclusions This longitudinal study of neuromuscular ultrasound in patients with CIDP identified morphological findings – particularly based on echogenicity and fascicular appearance rather than CSA measurement – that may have potential as biomarkers in identifying treatment-responsive patients, along with those who may have ‘burnt out’ disease.

2804

COVID-19 MRI-NEGATIVE MYELOPATHY – A DISTINCT SYNDROME? THREE PATIENTS AND A REVIEW OF THE LITERATURE

¹Bernard Liem, ¹Tony Zhang*, ¹Chaminda Aponso, ¹Jenna Young, ²Tim Elliot, ¹Neil E Anderson. ¹Neurology, Auckland City Hospital/Te Toka Tumai, Auckland, New Zealand; ²Neuro-Radiology, Auckland City Hospital/Te Toka Tumai, Auckland, New Zealand

10.1136/bmjno-2023-ANZAN.153

Background Acute MRI-positive transverse myelitis is a well documented post-infectious phenomenon following SARS-CoV-2 infection. There are reports of MRI-negative presentations of myelitis following SARS-CoV-2 infections.

Methods Between September and December 2022, three patients presenting to hospitals in the Auckland region, New Zealand, were prospectively followed by the authors. Their clinical features are outlined. A literature search for patients with MRI-negative myelitis/myelopathy following SARS-CoV-2 infection was conducted.

Results We document three patients with initially negative MRI who presented with symptoms and signs of myelopathy – progressive paraparesis with significant gait disturbance, impaired proprioception, Lhermitte’s phenomenon, sensory level, hyperreflexia and spasticity. Despite treatment with corticosteroids, all patients had progression of symptoms. Ten further patients with initial normal MRI of the spinal cord have been described in the literature. The mean age was 58, and 7 were women. The onset of symptoms ranged from 1 to 16 weeks after SARS-CoV-2 infection. All patients had lower limb onset of symptoms, with 10 developing paraparesis. Nearly all had significant dorsal column involvement, often with sensory ataxia. Our 3 patients exhibited early Lhermitte’s phenomenon as a distinctive feature. Most patients had hyperreflexia and a sensory level. Treatment was most commonly with intravenous methylprednisolone, with rare improvement.

Conclusions Due to the novel description of these patients alongside the absence of initial MRI findings, the diagnosis can easily be overlooked. We propose these patients have a distinct syndrome of COVID-19 MRI-negative myelopathy.

2807

SECONDARY INSULTS PREVALENCE, CO-OCCURRENCE AND RELATIONSHIP WITH OUTCOME AFTER SEVERE TRAUMATIC BRAIN INJURY

¹Joseph Donnelly*, ²Erta Beqiri, ²Peter Smielewski, ²Marek Czosnyka. ¹Auckland City Hospital, Auckland, NZ, New Zealand; ²University of Cambridge, Cambridge, UK

10.1136/bmjno-2023-ANZAN.154

Objectives Secondary insults due to high ICP, low CPP and impaired cerebral pressure reactivity (PRx) are presumed important after severe traumatic brain injury (TBI), however the incidence, co-occurrence, and relative prognostic importance is unclear.

Methods Severe TBI patients requiring computerized ICP monitoring were included. Secondary insults due to ICP, PRx, and CPP were defined as having at least 1 hour with a mean value above (or below for CPP) a respective threshold (ICP 20, CPP 60, and PRx 0.25). Percentage time with isolated or co-occurring insults was calculated (impaired ICP only, impaired CPP only, impaired PRx only, impaired ICP and PRx, impaired ICP and CPP, impaired CPP and PRx,