pursuing a nominally 'protective' strategy of vitamin B12 supplementation in the context of continued nitrous oxide exposure.

120 PROSPECTIVE STUDY DETERMINING THE PREDICTIVE VALUE OF INATTENTION IN THE EVALUATION OF SUSPECTED ACUTE STROKE; A TERRITORY WIDE STUDY

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Introduction 25%-30% of patients admitted with acute stroke are stroke mimics. Clinical assessment plays a major role in diagnosis in the hyperacute clinical setting. Identifying physical signs that correctly identify stroke is therefore important. A retrospective study[1] suggested that the presence of sensory inattention (or neglect) was seen exclusively in stroke patients, suggesting that inattention might be a reliable discriminator between stroke and mimics. This study aimed to test that hypothesis.

Methods Prospective assessment of suspected stroke patients for the presence of neglect (NIHSS definition). Neglect could be visual and/or somatosensory. The presence of neglect was then correlated with eventual diagnosis at 48 hours. Sensitivity, specificity and predictive values were calculated. A post-hoc analysis evaluated the correlation of neglect with large vessel occlusion in patients who underwent angiography.

Results 115 patients were recruited, 70 ultimately with stroke and 45 with other diagnoses. Neglect was present in 27 patients (of whom 23 had stroke) and absent in 88. This yielded: sensitivity 32.9%, specificity 91.1%, positive predictive value 85.2%, and negative predictive value 41.9%. Two patients with neglect had a diagnosis of functional illness, one a seizure, and one a brain tumour. Neglect was present in 7 out of 8 patients with large vessel occlusion (sensitivity 87.5%) and was absent in all patients who did not have large vessel occlusion on angiogram.

Conclusion When present, neglect is a strong predictor of organic pathology and large vessel occlusion. However, it is not 100% specific and can be seen in functional presentations.

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121 DIABETIC ULNAR NEUROPATHY WITH NON-LOCALIZING ELECTROPHYSIOLOGY: A NERVE ULTRASOUND STUDY

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Introduction The classification and management of diabetic ulnar mono-neuropathy with non-localizing electrophysiology (NL-UN) is challenging, as this could be due to a focal axonal lesion at the elbow that may require surgery or, be part of the mono-neuritis multiplex spectrum of diabetic neuropathy. The distinction cannot be made by clinical examination and electrophysiology.

We investigated the value of nerve ultrasound in this situation.

Methods We analysed ulnar nerve ultrasound in 9 consecutive diabetic patients (5 males, mean age 65.4 years) with 12 NL-UN affected nerves. The ulnar neuropathy was clinically and electrophysiologically severe in 9 nerves and moderate in 3.

Results Ultrasound showed diffuse ulnar nerve abnormality in 9 nerves (75%) and focal nerve abnormalities at the elbow in 3 (25%)

Conclusions The majority of NL-UNs in this small sample of patients with diabetes were not due to focal lesions at the elbow. This is in contrast with the nerve ultrasound findings in non-diabetic patients with NL-UN, which almost invariably show a focal lesion at the elbow (Pelosi et al, 2018), and confirms that the pathophysiology of ulnar mono-neuropathy is different and more complex in diabetes.

Ultrasound appears to be a useful tool to classify NL-UN in the patient with diabetes and larger studies are indicated.

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122 'MY MIGRAINE VOICE: BURDEN OF MIGRAINE AND IT'S MANAGEMENT IN AN AUSTRALIAN COHORT'

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Introduction Migraine is the greatest cause of disability under the age of 50. It impairs ability to function, work and maintain relationships. This survey aimed to assess the impact of migraine and its management.

Methods A questionnaire was sent to patients >18 years old who had taken at least one preventive treatment for migraine in the past. We report here the Australian results.

Results 68% were women, mean age 41 years. 53% were in paid employment whilst 13% received a disability allowance due to migraine. All patients (n=320) in the Australian survey had $\geq$ 4 migraine days each month. 90% had taken at least one preventive (274), with 80% (194) needing to change the preventive treatments previously. Common comorbidities were depression (41%), anxiety (40%), chronic pain (29%), sleep disorder (25%) and overweight (24%).

Diagnosis rate on initial GP visit was 57%, with 26% receiving a diagnosis in <1 month and 55% by 6 months.

There was greater retention of use (60%) and satisfaction (60%) with acute therapies, compared with use (43%) and satisfaction (53%) with preventives. Dissatisfaction with preventives included lack of efficacy (54%) and too many side effects (36%). Most (>60%) patients reported fear of the next attack, feeling hopeless and difficulty thinking clearly during attacks. Employers were often (69%) aware of the

migraines, but only 24% offered any support. Migraine had negative impacts on relationships.

Conclusion The Migraine Voice Survey highlights the true burden of migraine in Australia and limitations of current management options.

123 GEMCITABINE-RELATED RADIATION RECALL AS A CAUSE OF FOCAL MYOSITIS AND MUSCLE NECROSIS

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Introduction Radiation recall is a phenomenon in which chemotherapy triggers an inflammatory response in tissue previously subjected to radiation therapy. A wide variety of agents have been implicated. Cutaneous tissue is most frequently affected but other tissue can be involved; myositis has been associated with administration of gemcitabine in particular. Incidence has been estimated at less than 6% and the pathophysiology is not understood. We present a case report from Gosford Hospital, with the additional feature of positive SRP antibodies.

Case A 74 year old female presented with a one day history of left hip pain and inability to weight bear. She had been diagnosed with metastatic squamous cell carcinoma of the lung five months earlier and underwent palliative radiotherapy to a left acetabular metastasis. 12 days prior to presentation she completed her second cycle of chemotherapy with carboplatin and gemcitabine. Pre- and post-contrast CT and MRI demonstrated necrosis in left sartorius, with foci of myositis in other muscles of the thigh, and surrounding soft tissue oedema. Symptoms improved after chemotherapy was ceased. Myositis antibody studies subsequently revealed low level positive Ku and SRP antibodies.

Conclusion Radiation recall should be considered in the differential diagnosis of myositis in oncology patients. The serum of our patient contained SRP antibodies, which are associated with immune mediated necrotising myopathy. A previous case study reported gemcitabine-induced radiation recall muscle necrosis associated with dermatomyositis. These findings hint that radiation recall myositis may occur in the setting of a predisposition to immune mediated myopathy.

124 CORRELATING STRUCTURE AND FUNCTION TO BETTER IDENTIFY SURROGATE END POINTS FOR CLINICAL TRIAL DESIGN: A LONGITUDINAL CLINICAL AND IMAGING STUDY OF PRIMARY PROGRESSIVE APHASIA

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Introduction Measuring longitudinal change in white matter tracts offers a highly sensitive way of monitoring the course of a range of neurodegenerative conditions. However, it remains unclear how structural changes correlate with symptom progression. Clinically meaningful outcomes remain a key requirement in therapeutic trial design so imaging biomarkers need to accurately predict these outcomes. Identifying surrogate clinical end points is of particular importance in neurodegenerative conditions where clinical change evolves slowly. To address this the current study aims to identify potential surrogate end points by assessing correlations between clinical and neuroimaging measures.

Methods 30 patients meeting consensus criteria for a diagnosis of primary progressive aphasia underwent longitudinal imaging and neuropsychological assessments at baseline and one year. A mixed effects model was designed to test for significant interactions over time between changes in neuropsychological performance and Fractional Anisotropy (FA) in key white matter tracts.

Results Declining single word comprehension correlated with reducing FA within bilateral inferior longitudinal fasciculus (ILF), bilateral superior longitudinal fasciculus (SLF) and the genu of the corpus callosum; declining naming ability correlated with reducing FA in the left ILF, right uncinate fasciculus and right SLF; declining word repetition correlated with reducing FA within the left ILF.

Conclusions Declining neuropsychological scores correlated with longitudinal decline in FA in a number of white matter tracts across an anatomically distributed language network. Correlations between function and structure provide evidence that monitoring structural white matter changes in the tracks identified may have value as a surrogate end point for future clinical trials.

125 CHARACTERISING SLEEP AND FATIGUE IN PATIENTS WITH PRIMARY MITOCHONDRIAL DISEASE

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Introduction Fatigue is common in patients with primary mitochondrial disease (PMD). There has been little prospective research into sleep pathology in these patients and assessment of scontributory factors to fatigue.

Methods Patients with PMD were prospectively assessed with overnight polysomnography in addition to measures of fatigue, muscle fatiguability, disease severity, sleep propensity and depression.

Results 16 patients participated, 15 completing inpatient polysomnography. Obstructive sleep apnoea (OSA) was common (53%), affecting 5/9 females (56%) and 3/6 males (50%), although most cases were mild in severity. There was a trend to higher incidence of OSA in older patients but not other traditional risk factors, nor presence of myopathy. The Epworth Sleepiness Scale (ESS) was the best predictor of OSA, although not reaching significance.

Fatigue was common, with 81% of patients having significant fatigue on the Fatigue Severity score and 69% on the Fatigue Impact Scale. The two scores correlated well (r =0.85, p 0.01).