

supportive therapies to improve quality of life. The understanding of genetic variants and associated pathology may provide a revenue to disease modifying therapies.

2382

AN AUSTRALIAN CASE OF CASPR2 POSITIVE, MORVAN SYNDROME

Parveen Sagar*, Lakshini Gunasekera, Abhishek Malhotra. *Neurology, Western Health, Sunshine, VIC, Australia*

10.1136/bmjno-2022-ANZAN.133

Introduction Morvan syndrome is a rare neurological disorder consisting of a combination of neuromyotonia with cognitive symptoms and dysautonomia or insomnia. It is associated with antibodies against the voltage-gated potassium channel (VGKC) associated proteins – most commonly, against CASPR2.

Case A 74-year-old male presented with six-months of worsening psychobehavioural changes, insomnia, amnesia, and neuromyotonia. At presentation, he complained of visual hallucinations and unsteadiness of gait. He subsequently developed urinary retention, labile blood pressure and atrial fibrillation. Neurologic examination revealed disorientation to time and place, dysarthria, diffuse hyperreflexia, and multifocal fasciculations.

Brain and whole cord MRI with contrast, was unremarkable. EEG showed moderate encephalopathy. CSF findings were unremarkable. Paraneoplastic antibodies and infectious and vasculitis screens were normal; malignancy was not found despite extensive investigation.

In serum, CASPR2-antibody was strongly positive, titre of 535pM, and also weakly positive for LGI1. Nerve conduction studies and electromyography showed post-CMAP after-discharges, and myokymia respectively. Overall, the study was suggestive of peripheral nerve hyper-excitability.

He was induced with intravenous immunoglobulins and pulsed with, and maintained, on steroids. He had excellent clinical response – his modified Rankin score improved from 4 to 1.

Conclusion Antibodies against the VGKC-complex proteins, most commonly CASPR-2, are associated with a wide spectrum of clinical diseases, often associated with an underlying malignancy. Morvan syndrome is one such rare and treatable manifestation. Awareness of this constellation of symptoms and consideration of prolonged clinical course are crucial in early diagnosis and prompt immunotherapy, or tumour therapy. Improvement can be pronounced, though relapse may occur.

2383

DOES SURGICAL CORRECTION OF REFRACTIVE ERROR ALLEVIATE HEADACHE IN PATIENTS WITH KERATOCONUS? – A RETROSPECTIVE ANALYSIS

¹Nigel TH Khoo*, ²Angelique Antoniou, ^{1,3}Greg Moloney, ⁴Clare Fraser. ¹*Sydney Eye Hospital, Sydney, NSW, Australia*; ²*Narellan Eye Specialists, Sydney, NSW, Australia*; ³*Discipline of Ophthalmology, Sydney Medical School, The University of Sydney, Sydney, NSW, Australia*; ⁴*Save Sight Institute, Sydney, NSW, Australia*

10.1136/bmjno-2022-ANZAN.134

Objectives Refractive error has long been thought to be a cause for headache, however, historical research on this topic has major methodical limitations.

Often, patients with different headache types were examined together, making any direct conclusion between refractive error and headache difficult.

We investigate if surgical correction of refractive error with Topography Guided Photorefractive Keratectomy (TGPRK) and Collagen Cross Linking (CXL) alleviates headache in patients with keratoconus in an appropriately classified patient population, guided by the International Classification of Headache Disorders (ICHD-3).

Methods 40 patients who had keratoconus and required TGPRK and CXL met inclusion criteria.

Patients who met diagnostic criteria for headache as defined by the ICHD-3 were asked about the nature of their headaches and impact on quality of life by means of the Head Impact Score (HIT-6) questionnaire, both pre-operatively and post-operatively.

Results 24 of 40 patients reported headache pre-operatively.

Post-operatively, only 9 patients had diagnosable headaches ($p < 0.05$).

The mean number of headache days per week decreased from 4.38 ± 2.37 days/week to 0.46 ± 0.72 days/week ($p < 0.05$).

The mean duration of headache decreased from 10.8 ± 100.7 to 34.4 ± 63.5 minutes ($p < 0.05$).

The consumption of analgesia decreased from 2.42 ± 2.34 days/week to 0.56 ± 1.16 days/week ($p < 0.05$).

Post-operatively, HIT-6 scores decreased significantly. 61% of patients stopped analgesia altogether.

Conclusion Surgical correction of refractive error in patients with keratoconus can alleviate headache in a large proportion of cases, significantly improving quality of life.

It may be that the surgical treatment of keratoconus should be considered in patients as part of their headache management.

2385

META-ANALYSIS OF THE HEAD IMPULSE TEST (HIT) AND HEAD IMPULSE TEST, NYSTAGMUS, TEST OF SKEW (HINT) IN THE DIAGNOSIS OF STROKE AND PERIPHERAL VERTIGO

¹Suyi Ooi*, ²Grace Phillips, ³Tanya Tang, ^{1,4}Luke Chen, ¹Anthony Fok, ¹John Ly, ^{1,5}Henry Ma, ^{1,5}Thanh Phan. ¹*Department of Neurology, Monash Health, Clayton, VIC, Australia*; ²*Faculty of Medicine, Nursing and Health Sciences, Monash University, Clayton, VIC, Australia*; ³*Department of Neurology, Peninsula Health, Frankston, VIC, Australia*; ⁴*Department of Neurology, Alfred Health, Melbourne, VIC, Australia*; ⁵*Department of Neuroscience Central Clinical School, Monash University, Melbourne, VIC, Australia*

10.1136/bmjno-2022-ANZAN.135

Objectives We conducted a meta-analysis of the HIT and HINT tests to diagnose peripheral vertigo (PV) and central vertigo in the emergency department (ED).

Methods Pubmed, Google Scholar, EmBase and articles references published in English up to July 2021 were searched for keywords 'vertigo' or 'acute vestibular syndrome' or 'dizziness' and 'head impulse' and 'stroke'. Bivariate method for meta-analysis was used.

Results 11 studies HIT (8 studies, N = 417) and HINT (6 studies, N = 405). HIT and HINT were performed within 24 hours in 4 of 11 studies. Positive likelihood ratio (PLR) and negative likelihood ratio (NLR) for HIT in PV was 4.85 (95% CI 2.83 – 8.08) and 0.19 (95% CI 0.12 – 0.29, I²63.25%) respectively. The (area under the curve) AUC for HIT the diagnosis of PV and stroke was 0.90 and 0.92 respectively.