

the question of safety for future vaccination in these patients where initial diagnosis and subsequent relapse had temporal associations with exposure.

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### HETEROGENEOUS PRESENTATIONS IN NEUROLYMPHOMATOSIS: A CASE SERIES

Aaron Gaekwad\*, Joanna Offord, Annmarie Bosco, James G Colebatch, William Huynh. *Prince of Wales Hospital, Sydney, Sydney, NSW, Australia*

10.1136/bmjno-2022-ANZAN.173

**Objectives** Neurolymphomatosis describes the direct infiltration of nerves by malignant lymphocytes.<sup>1</sup>

**Methods** Case series of 3 patients at one institution.

**Results** A 73-year-old male with a background of inactive Non-Hodgkins Lymphoma (NHL) with progressive lower limb asymmetrical wasting and weakness punctuated by significant neuropathic pain and autonomic features. Examination revealed hip and knee flexion weakness bilaterally with milder knee and ankle extension weakness with depressed left knee and ankle reflexes. Lower limb electrophysiological (EP) testing revealed an asymmetrical sensorimotor neuropathy. A sural nerve biopsy showed severe axonal neuropathy. PET Scan showed a perineural involvement of the S1 nerve, and hypermetabolism involving cerebral lesions and a peritibial soft tissue lesion, the latter which was biopsied and confirmed NHL recurrence.

A 40-year-old male with a 1.5 month history of lower limb weakness and neuropathic pain, on a background of Acute Lymphoblastic Leukaemia (ALL) in remission. EP studies demonstrated absent S1 H-reflexes bilaterally with preserved sural responses whilst evoked potentials (EPs) were prolonged indicating a polyradiculopathy. CSF studies revealed a relapsed ALL.

An 86-year-old female with progressive right-sided arm and leg sensory symptoms and weakness associated with multidirectional diplopia. Examination revealed right upper and lower limb wasting and weakness with abduction weakness in both eyes. EP studies showed asymmetrical demyelinating polyneuropathy and delayed visual EPs bilaterally. MRI and PET revealed changes involving the oculomotor nerves, right brachial and sacral plexus and nerve roots. Biopsy of a psoas mass revealed NHL.

**Conclusion** The spectrum of neurological presentations is vast in patients with neurolymphomatosis.

#### REFERENCE

- Gan HK, Azad A, Cher L, Mitchell PL. Neurolymphomatosis: diagnosis, management, and outcomes in patients treated with rituximab. *Neuro Oncol.* 2010;12(2):212–215. doi:10.1093/neuonc/nop021

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### CLINICAL, NEUROPHYSIOLOGICAL, AND IMAGING CHARACTERISTICS OF OLIGOEPILEPSY

<sup>1</sup>Anna Tierney\*, <sup>1,2</sup>John Dunne, <sup>1</sup>Jacqui Saw, <sup>2</sup>Judy Lee, <sup>1,2</sup>Nicholas Lawn. <sup>1</sup>Neurology, Royal Perth Hospital, Perth, WA, Australia; <sup>2</sup>WA State Epilepsy Service, Sir Charles Gairdner Hospital, Perth, WA, Australia

10.1136/bmjno-2022-ANZAN.174

**Objectives** Oligoepilepsy is a poorly defined syndrome characterised by infrequent seizures. Oligoepilepsy poses a

management dilemma with regards to the role of anti-seizure medication (ASM) and driving advice. The clinical, EEG and imaging characteristics of oligoepilepsy have not been well described.

**Methods** Patients were identified from a prospective database of adults with first-ever seizure. Oligoepilepsy was defined as patients who were not treated with ASM, and had  $\geq 2$  unprovoked seizures, with  $\leq 1$  seizure per year over  $\geq 3$  years follow-up. The comparator group comprised the remaining epilepsy patients.

**Results** Of 810 patients with  $\geq 2$  unprovoked seizures, 33 (4%) met the definition of oligoepilepsy (45% female, median age 36 years, range 17–90 with no difference in age or sex to the epilepsy group). Median time to second seizure was 1343 days, as opposed to 107 days in the comparator group ( $p < 0.001$ ). Patients with oligoepilepsy were less likely to have a first seizure from sleep, remote symptomatic aetiology and/or epileptogenic lesion on neuroimaging and focal onset seizure. There was no difference in the rate of presentation with clusters of seizures or status epilepticus and the proportion of patients with EEG epileptiform abnormalities (21%) was the same in the patients with epilepsy and oligoepilepsy.

**Conclusion** Oligoepilepsy is characterised by a longer interval between the first and second seizure and a lower frequency of remote symptomatic aetiology, focal seizures and seizures from sleep. Identification of this rare subgroup of epilepsy may have an impact on management.

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### 'CLOUD-LIKE ENHANCEMENT' ON MRI SEEN IN COVID-19 RELATED ACUTE DISSEMINATED ENCEPHALOMYELITIS

<sup>1</sup>Sophie Chatterton\*, <sup>2</sup>Ariadna Fontes Villalba, <sup>2</sup>Paul Silberstein, <sup>2,3</sup>John Parratt. <sup>1</sup>Department of Neurology, Royal North Shore Hospital, St Leonards, NSW, Australia; <sup>2</sup>Department of Neurology, Royal North Shore Hospital, Sydney, NSW, Australia; <sup>3</sup>University of Sydney, Sydney, NSW, Australia

10.1136/bmjno-2022-ANZAN.175

**Objectives** With the COVID-19 pandemic, there has been increasing recognition of post-COVID-19 acute disseminated encephalomyelitis (ADEM).<sup>1</sup>

**Method** We describe an ADEM case following infection with COVID-19 with atypical radiology findings of 'cloud-like enhancement' (multiple patchy enhancing lesions with poorly defined margins), a feature previously thought specific for neuromyelitis optica spectrum disorders (NMOSD).<sup>2,3</sup>

**Results** A fifty year-old female presented with confusion, right hemisensory numbness and hemiparesis with gait unsteadiness in the context of a mildly symptomatic COVID-19 infection ten days prior. Her background was significant for urticaria treated with three-weekly omalizumab and depression. Magnetic resonance imaging (MRI) revealed multifocal inflammatory changes with some diffusion restriction and 'cloud-like enhancement'. MRI whole spine showed no areas of demyelination. Cerebrospinal fluid was acellular with borderline elevated protein, negative culture and negative multiplex PCR. Antibodies against aquaporin-4 and myelin oligodendrocyte glycoprotein were negative. She was diagnosed with post-COVID-19 ADEM and was administered pulse methylprednisolone for five