Arguments by 'lumpers' seek to continue current practices for surety of surveillance, rehabilitative, prognostic and financial equipoise purposes: this merits review. Modern-day diagnoses by genetics aid reproductive plans; rehabilitation via virtual therapies relying on vision and hearing; artificial limbs, robotics and the application of nanotechnology for monitoring and mobility purposes – have altered the landscape in which modern CP is contextualized.

**Conclusion** CP is multi-dimensional: so many trajectories can now be clearly specified, quantified and ameliorated. There are cogent arguments for specifying causes as far as possible ('splitting'), with specific interventions for each aetiology (including financial), naturally flowing.

## 2427 RIGHT PARIETAL STROKE: WHAT THEY DON'T KNOW CAN'T HURT THEM!

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**Objective** Describe a perinatal parietal stroke with emotional anosognosia, presenting in adulthood.

A 46 years old female presented with imaging showing a remote right parietal infarct (superior and inferior lobules), and colpocephaly. There was a history of Congenital Rubella Syndrome (CRS), cognitive impairment and frequent near-miss motor vehicle accidents. She self-reported being an 'unsettled child' – in sleep and education. She had difficulty in social situations interpreting others' intentions toward her, even her husband's. She had difficulty with child-rearing.

Perinatal strokes occur between 20weeks gestation and 28 days postnatally, presenting catastrophically or with milder Cerebral Palsy-like picture. Asymptomatic cases may go unrecognized for many years: one cause of an 'asymptomatic' stroke is a right parietal lesion with 'anosognosia'.

The parietal lobe is at the cross-roads of vision, hearing, sensation and is involved with mediating self-awareness. Right Parietal strokes can present with difficult to characterize spectrums of misperceptions in vision, hearing and emotion. However, two further considerations apply here: 1) the disturbance of parietal function had occurred preceding the development of Parieto-cortical (short and long) fibre connections, and, 2) long fascicular tracts traversing through that parietal lobe have had their connections interrupted, secondarily affecting inter-hemispheric functions.

**Conclusion** A prenatal right parietal stroke is rare enough that neuropsychological test 'normal values' would be difficult to interpret. Patients who present with longstanding neurological issues should be imaged at least once as an adult. Validated neuropsychological testing for the right parietal lobe needs to be developed to better understand this debilitating condition.

## 2428 'AN UNNERVING PROBLEM', A CASE OF SEVERE RAPIDLY PROGRESSING POLYNEUROPATHY IN AN ELDERLY LADY

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**Background**

- The patient is A 88-year-old lady who initially presented for workup of a pelvic mass but subsequently found to have a rapidly progressing weakness of both legs and hands.
- 5 weeks ago, the patient was independent with all activities of daily living. Currently, the patient had bilateral foot drop worst on the left, bilateral wrist drops, impaired pain and proprioception with preservation of reflexes on clinical examination.

**Investigation and Treatment**

- On initial presentation, patient had raised ESR 110 and raised CRP 115 with unclear cause. Septic screen and cultures were negative. Autoimmune screen was negative.
- CSF studies including cultures, chemistry, oligoclonal bands and cytology were normal
- Neuroimaging including MRI scan of the entire spine and CT brain were normal
- Significantly raised paraproteins but polyclonal and non-specific.
- Nerve conduction studies confirmed severe sensory axonal polyneuropathy, but interpretation greatly limited by patients' ability to tolerate the examination. Coexisting motor neurone involvement could not be excluded on current study.
- Was treated with IVIG using CIDP protocol with some improvement in patient's motor function.

Goals and learning points of presentation.

- To highlight the challenges and difficulty in managing a patient with rapidly progressive polyneuropathy in the geriatric age group with unclear cause
- To initiate an open discussion regarding the approach to diagnosis and management of these patients

## 2433 COVID VACCINATION-RELATED EXACERBATION OF SEIZURES IN PATIENTS WITH EPILEPSY

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**Objectives** 12 months since the implementation of the COVID vaccination, over 94% of the Australian population over 16 years old are fully vaccinated. Although vaccines are generally safe in persons with epilepsy (PWE), seizure-like events are a known complication of vaccinations, including COVID vaccines. This study assessed the rate of COVID vaccination-related exacerbation of seizures in PWE.

**Methods** Adult PWE who had received at least one COVID vaccine were prospectively recruited at the epilepsy clinic between June 2021 and February 2022. Patient demographics, including epilepsy history, vaccination details and side effects were recorded. The rate of seizure exacerbation, defined as within one week of vaccination, was assessed.

**Results** 364 PWE received the COVID vaccine, with 352 patients (97%) receiving two doses, with 73% receiving the Pfizer vaccine as their initial dose. 31% of patients were 12-months seizure free at baseline. The median number of anti-seizure medications (ASM) was 2, with 65% of patients on 2 or more ASM. Most patients (62%) had focal epilepsy. 10

patients (2.8%) reported an exacerbation of seizures following their first vaccination. None were seizure-free at baseline. One patient required admission for seizure exacerbation. 4 patients had other systemic side effects and 3 patients had exacerbation of seizures after their second dose.

**Conclusion** Exacerbation of seizures are an infrequent complication of COVID vaccination and mainly occur in non-seizure free patients. It appears, the reported rate of seizure exacerbation and other complications due to COVID outweighs the risk of exacerbation due to vaccinations.

## 2434 THE FREQUENCY AND LOCATION OF COMPLEX REPETITIVE DISCHARGES IN CERVICAL DYSTONIA

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**Objectives** Cervical dystonia (CD), the most common form of adult focal dystonia, is characterized by sustained and repetitive muscle contraction producing abnormal head and neck posture, muscle hypertrophy, pain and tremor.

Complex repetitive discharges (CRDs), detected on needle electromyography (EMG), are bursts of spontaneous trains of complex polyphasic potentials that repeat at a regular frequency (range, 5–100 Hz) and terminate abruptly. The clinical significance of CRDs is unclear though they are reported in both myopathic and neuropathic conditions. CRDs are rarely reported to accompany dystonic posturing. Herein we report the frequency of CRDs amongst patients treated with EMG-guided botulinum toxin (BoNT).

**Methods** Patients attending a BoNT clinic were prospectively collected from August 2020.

**Results** During ascertainment, 351 patients received EMG-guided BoNT injections for indications including CD (n=244), temporomandibular-joint dysfunction (n=53), spasticity (n=43) and tremor (n=11). CRDs were identified in 37 CD patients (26 female) with median age 65 years (Range 40–85). CRDs were identified in 6 BoNT naïve patients.

CRDs were identified in single muscles in 29 patients and multiple muscles in 8 patients, including levator scapulae (n=31, 38 muscles), trapezius (n=6), scalenes (n=2, 3 muscles) and sub-mentalis (n=1) muscles. CRDs were identified at the location of prominent pain in 20 of 37 patients.

**Conclusions** CRDs were present in approximately 16% of CD patients and were not identified in other BoNT indications. Amongst CD patients, CRDs most frequently involved the levator scapulae muscle (79%). The continuous spontaneous activity of CRDs possibly contribute to muscle hypertrophy and pain in CD.

## 2435 CLASSIC ANGIOGRAPHIC FINDINGS IN A CASE OF PRIMARY ANGIITIS OF THE CENTRAL NERVOUS SYSTEM

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A 75 year-old retired primary school teacher developed multiple sequential strokes over a three month period. MRI brain showed ischaemic strokes of different ages across multiple vascular territories, involving the right genu of the corpus callosum and the left posterior limb of the internal capsule. MR angiography demonstrated multifocal intracranial arterial segmental narrowing, while CT angiography showed no evidence of vasculopathy in the remainder of the medium or large vessels of the neck, thorax or abdomen. Digital subtraction angiogram demonstrated severe intracranial arteriopathy, with multiple stenoses in the posterior, middle and anterior cerebral arteries bilaterally. FDG-PET showed no abnormal glucose uptake in the large or medium blood vessels of the body, suggesting against a systemic vasculitis with extracranial vessel involvement. Cerebrospinal fluid analysis was non-contributory. Random skin biopsies yielded no evidence of intravascular lymphoma. Given recurrent ischaemic strokes with multifocal arterial vessel changes confined to the intracranial circulation, she was diagnosed with primary angiitis (vasculitis) of the central nervous system. She was treated with six cycles of intravenous cyclophosphamide and has had no further events.

In the accompanying poster, the digital subtraction angiography images are presented demonstrating classical features of primary angiitis of the central nervous system. This submission is intended as a teaching case in neuroimaging.

## 2436 AUTONOMIC NERVOUS SYSTEM DYSFUNCTION IN IDIOPATHIC REM SLEEP BEHAVIOUR DISORDER

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**Introduction** Idiopathic REM sleep behaviour disorder (iRBD) is a parasomnia characterized by lack of muscle atonia during REM sleep. It is widely regarded as a prodrome to multiple α- synucleinopathies such as Parkinson's Disease (PD), Lewy Body Dementia (DLB) and Multisystem atrophy (MSA). Autonomic nervous system dysfunction is common in iRBD.[1] Accurate characterization of autonomic impairment may provide a better understanding of pathophysiology of α-synucleinopathies and offer the target for disease modifying therapies in the prodromal phase.

**Method** We performed a literature search of Medline database using keywords: 'REM sleep behaviour disorder', 'Autonomic Nervous System Diseases', 'Dysautonomia', yielding 209 articles published in in English from 2000 to 2022. 26 articles met inclusion criteria and were included in this study.

**Results** 4 questionnaire studies found higher prevalence of gastrointestinal, urinary and cardiovascular autonomic dysfunction iRBD patients than healthy control, with gastrointestinal domain most affected. Cardiovascular, sudomotor, pupillomotor domain were further characterized using objective tests comparing iRBD patients to control. 5 studies found reduced heart rate variability, predominantly driven by parasympathetic dysfunction. 4 studies demonstrated cardiac adrenergic dysfunction on cardiac scintigraphy, and 4 other studies demonstrate sympathetic adrenergic dysfunction using cardiac reflex testing. 2 studies identified post-ganglionic sympathetic sudomotor dysfunction and 2 studies reported impaired pupillary response using pupillometry.

**Conclusion** Previous small-sized studies have demonstrated prevalent but heterogeneous autonomic impairment in iRBD