microvascular change in 15%; mood disturbance in 15%; medication in 15%; alcohol in 4% and AD in 4%. Compared with the Epilepsy group, the AD group had a lower Addenbrookes Cognitive Examination III (ACE-III) score (79.3±10.8 versus 87.5±6.5, $p=0.01$); specifically in the attention, memory and visuospatial subdomains ($p=0.004$, $p=0.002$ and $p=0.02$) but not fluency and language subdomains ($p>0.05$); and lower scores on additional assessments of naming, visuospatial and executive function ($p\leq 0.001$). The AD group had more abnormal metabolism in the temporal, parietal and occipital lobes than the Epilepsy group ($p=0.02$, $p=0.006$ and $p=0.005$).

Conclusion Patients with late onset epilepsy and cognitive complaints rarely have dementia diagnosed at their first neuropsychological assessment and tend to have milder cognitive impairment than patients with AD. The two groups can be differentiated by their neuropsychological and FDG-PET profiles.

REFERENCE

1. Sen A, Capelli V, Husain M. Cognition and dementia in older patients with epilepsy. *Brain* 2018;**141**(6):1592–1608.

Poster abstracts

042 A CASE OF ISOLATED MUSCULOCUTANEOUS NERVE INJURY FOLLOWING SKYDIVING SIMULATION

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10.1136/bmjno-2021-ANZAN.42

Background Isolated musculocutaneous nerve injuries are rare, and mostly iatrogenic or traumatic.

Case Presentation We present a case of isolated musculocutaneous neurapraxia in an otherwise well young woman following uncomplicated simulated skydiving.

Management and Outcome While the injury was quite debilitating, complete neurological recovery occurred within two months without any intervention.

Discussion This case illustrates a rare pattern of neurological injury, caused by a recreational activity growing in popularity. The pattern of injury mimics that of an upper trunk brachial plexopathy or C5/6 radiculopathy. Increased awareness of the injury avoids misdiagnosis and affords the opportunity for prevention.

043 NEUROLOGICAL MANIFESTATIONS IN RHEUMATOLOGICAL DISEASE: A CASE SERIES I

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10.1136/bmjno-2021-ANZAN.43

Objective Rheumatology encompasses a broad range of multisystemic, autoimmune and inflammatory disorders. Neurological manifestations of these diseases are not uncommon. Neurological findings may predate rheumatological findings or may emerge months to years post initial diagnosis. Rheumatological diseases presenting as neurological syndromes can cause diagnostic challenges.

Methods/Results We present a range of rheumatological cases with unusual neurological presentations that demonstrate this point including; C2-C3 facet arthropathy in Diffuse Scleroderma, Granulomatosis with polyangiitis manifesting with craniofacial involvement, pseudo vasculitis associated cerebrovascular events, SAPHO syndrome with a thoracic syrinx, Neuro- Bechet's vasculitis with tumour-like CNS lesions, Platybasia in Paget's disease and others.

Conclusions Familiarity with the neurological manifestations of rheumatologic diseases is important for both rapid diagnosis and appropriate intervention.

044 METABOLIC SYNDROME IN A NEW ZEALAND GLIOBLASTOMA COHORT 2005–2020: A RETROSPECTIVE ANALYSIS AND REVIEW OF THE LITERATURE

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10.1136/bmjno-2021-ANZAN.44

Background Glioblastoma (GBM) is an aggressive form of glioma. Even with standard-of-care Stupp protocol (surgery, radiotherapy, and temozolomide), median overall survival is only 10-12 months in population-based studies. Metabolic reprogramming is a hallmark of glioblastoma, with energy metabolism aberrantly geared towards aerobic fermentation. The prevalence of metabolic syndrome is 16% in the general NZ population and 32% in the Maori population.

Objectives We aimed to determine 1) if metabolic syndrome was more prevalent in our GBM cohort compared to general NZ population 2) if metabolic syndrome was associated with worse overall survival in GBM 3) if ethnicity influenced survival outcomes.

Methods We performed a retrospective analysis of 170 patients diagnosed and treated for GBM between 2005–2020 in one institution. Clinical and biochemical data relating to metabolic syndrome were collected. Overall survival was determined from the date of initial a surgical diagnosis to the date of death or data acquisition.

Results 18.2% of GBM patients met the criteria for metabolic syndrome, 27.7% of Maori and 16.1% of European New Zealanders. Patients with metabolic syndrome had statistically significant worse overall survival compared to those patients without metabolic syndrome regardless of treatment [mean 9.7 vs 18.4 months] p= 0.016 ($p\leq 0.05$). Power was too low to comment on the prevalence of metabolic syndrome or ethnicity.

Conclusion Our study demonstrates that metabolic syndrome is associated with statistically significant poorer outcome in GBM patients. Consequently, this data will provide a control group for our current prospective study investigating the antineoplastic effects of metabolic therapies in GBM.

045 MULTIPLE CRANIAL NEUROPATHIES IN A PATIENT WITH SYPHILITIC MENINGITIS

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10.1136/bmjno-2021-ANZAN.45