impending synucleinopathy with over 90% developing either Parkinson’s disease (PD), Dementia with Lewy Bodies (DLB) or Multiple System Atrophy (MSA) after 15 years. This finding has stimulated efforts to actively register and track progression of such patients. Here we present experience of a biobanking program established with the aim of identifying prodromal synucleinopathies to facilitate recruitment to neuroprotective trials as they become available.

**Methods** Patients with iRBD were prospectively and sequentially recruited. Cross-sectional comparator groups consisting of healthy controls, idiopathic PD (within 5 years of diagnosis) and DLB were also recruited. Patients underwent a standardized assessment protocol including clinical phenotyping, neuropsychometric testing, multimodal MRI, polysomnography, quantitative electroencephalography, chronobiology (melatonin and clock gene expression profiling) and gait testing. Subjects were invited for annual and biennial review.

**Results** 102 patients have been recruited into the study since July 2016, including 35 patients with iRBD, 26 DLB, 19 early PD and 16 controls. 15 patients have returned for follow-up with 3 converting to a synucleinopathy (2 DLB, 1 PD). 75% of participants were able to complete all elements of assessment protocol. Preliminary evaluation of iRBD participants reveals early changes in clock gene expression (BMAL1) and subtle changes in patterns of gait compared to older controls.

**Conclusions** Our preliminary findings demonstrate utility and feasibility of a prodromal biobanking program within the Australian context aimed at identifying prodromal synucleinopathies. Similar models can be applied to other centers to improve access and create an extended national collaborative network.

**ASSOCIATIONS BETWEEN COGNITIVE AND MEMORY PROBLEMS, EMPLOYMENT AND QUALITY OF LIFE: A SURVEY OF EPILEPSY PATIENTS IN AUSTRALIA**

**Introduction** This analysis explored relationships between memory/cognitive issues, quality of life (QoL), and employment among patients with epilepsy (PwE) in Australia.

**Methods** Cross-sectional surveys were completed by PwE, or caregiver proxies, recruited via the online pharmacy application MedAdvisor and Australian PwE Facebook groups from May–August 2018. Data were collected on adverse events from antiepileptic drugs (AEDs), comorbidities, epilepsy severity and management, QoL (using QOLIE-10-P total score) and demographics. Descriptive statistics were stratified by employment status: employed; not looking for work (NLW); looking for work (LW); or unable to work (UW), and memory/cognition-related variables and QOLIE-10-P within each employment group.

**Results** 930 eligible responses reporting current AED use were included (71% via MedAdvisor, 29% via Facebook; 53% seizure-free for >1 year). Mean QOLIE-10-P score was significantly different across employment groups (p<0.001): 49.61 in employed PwE (n=493), 48.87 in NLW (n=227), 32.75 in LW (n=52), and 25.97 in UW (n=178). After controlling for possible confounders, presence of memory problems from AEDs was associated with -7.50 decrease in QOLIE-10-P only among employed PwE (p=0.002). The extent that PwE felt bothered by memory difficulties, however, was significantly associated with QOLIE-10-P in all employment groups; generally, as level of concern about memory/cognition-related variables and QOLIE-10-P decreased.
A CASE OF DELAYED POST-HYPOXIC LEUKOENCEPHALOPATHY COMPLICATING DRUG OVERDOSE

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Abstract

Introduction Delayed post-hypoxic leukoencephalopathy (DPHL) is a syndrome characterised by neurological deterioration following a period of recovery after an initial hypoxic event with striking white-matter change on magnetic resonance imaging. We present a case characterised by insidious onset and a fluctuating course of cognitive and neuropsychiatric symptoms.

Methods Single case report.

Results A 61 year old lady, with a background history of previously well managed bipolar affective disorder, was found unresponsive following an intentional overdose of temazepam and tramadol. She was hypotensive, hypoxic and required ventilatory and inotropic support. Following extubation, the patient had residual left-sided weakness and MRI confirmed a right frontotemporal watershed infarction. A three week period of clinical improvement was followed by marked deterioration firstly with fluctuating mood and other neuropsychiatric symptoms which progressed to severe impairment of cognition and alertness. There was generalised slowing on the EEG and the CSF was unremarkable. Repeat neuroimaging undertaken on day 41 of the admission, revealed new symmetric and confluent cerebral white matter changes with high signal on the Diffusion Weighted Images (DWI) and Fluid Attenuated Inversion Recovery (FLAIR) images. The patient was managed with supportive care and sustained a clinically significant recovery.

Conclusion A diagnosis of DPHL should be considered in patients with variable mood and cognition following initial improvement after a hypoxic event.

REFERENCES