have argued that it could represent a distinct clinical entity. The present study undertook in depth phenotyping along with assessment of cortical function to further explore disease pathophysiology in MND with malignancy (MND-M) patients.
Methods Clinical features along with assessment of peripheral and cortical function was undertaken in 13 MND-M and results were compared to sporadic and familial MND cohorts.
Results From a cohort 13 patients (10 males; aged 65.2±2.0 years), 30.8% were diagnosed with a haematological malignancy. The lower motor neuron phenotype predominated in the in the MND-M patients ($\chi2=10.8$, $P<0.01$), with the upper motor neuron (UMN) score being significantly reduced in MND-M patients compared to sporadic and familial MND cohorts ($\chi2=6.84$, $P<0.01$). The neurological deficits did not respond to treatment of the underlying malignancy in the majority of MND-M (92%) patients, and as such there were no significant differences in survival between the cohorts. Despite a paucity of UMN signs, cortical hyperexcitability was evident in MND-M patients, as indicated by reduction in short interval intracortical inhibition ($P<0.01$) and increase in motor evoked potential amplitude ($P<0.01$), that were similar to findings in sporadic and familial MND cohorts.
Conclusions The present study suggests that MND-M falls within the spectrum of MND. A co-incidental association between MND and malignancy is underscored by cortical dysfunction and clinical findings which seems within the spectrum of abnormality evident in classical MND phenotypes.

093 HOW TO DIAGNOSE LEWY BODY DEMENTIA? PREVALENCE AND UNDERLYING RELATIONSHIP BETWEEN CLINICAL AND NEUROPSYCHOLOGICAL FEATURES OF DLB

Elie Matar*, Kaylena A Ehgoetz Martens, Glenda M Halliday, Simon JG Lewis. *Brain and Mind Centre, University of Sydney, Camperdown, NSW, Australia*

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Introduction Despite its importance for management, prognostication and selection of patients for clinical trials, the diagnosis of Dementia with Lewy Bodies (DLB) remains challenging. Complicating this is a recent change in the diagnostic criteria which has arguably shifted the expected phenotype of DLB patients. In this study we aimed to characterize and examine the relationship between cognitive and clinical diagnostic variables in DLB patients to uncover latent symptom clusters that may streamline future diagnostic approaches in the clinic.
Methods The clinical and neuropsychological profile of 27 prospectively recruited participants diagnosed with *probable* DLB and 25 age-matched controls was characterized according to the most recent consensus criteria.Symptoms were scored using a novel combination of established clinical and research instruments.
Results We demonstrate comparable sensitivity of formal neuropsychological testing and bedside screening tools (MOCA/MMSE) for identifying domain-specific differences between controls and patients($p<0.001$). Optimal sensitivity thresholds for diagnosis of Parkinsonism (88.9%) were explored yielding a prevalence range of 50%-90% within our cohort.Factor analysis using all core and supportive features of the diagnostic criteria identified 6 independent factors accounting for 81% of the total variance. Unique relationships identified included between hallucinations and fluctuations and excessive daytime somnolence; between REM sleep behavior disorder and orthostatic hypotension; and Parkinsonism and urinary disturbance. 'Prodromal' symptoms including autonomic and early neuropsychiatric features are represented in the remaining factors.
Conclusion Parsimonious delineation of clinical variables using identified symptom clusters can aid DLB diagnosis.Clusters are also used to highlight latent pathological relationships. Appropriate instruments and thresholds for detecting dementia and core and suggestive features are presented.

094 TOWARDS OBJECTIVE TESTING IN PARKINSON'S DISEASE: A SYSTEMATIC REVIEW OF THE LITERATURE LOOKING AT ASSESSMENT OF POSTURAL SWAY

[1]Wenbo Ge*, [2,1]Deborah Apthorp, [3,4]Christian J Lueck, [1,5,6,7]Hanna Suominen. *[1]Research School of Computer Science, The Australian National University, Canberra, ACT, Australia; [2]School of Psychology and Behavioural Sciences, University of New England, Armidale, NSW, Australia; [3]Department of Neurology, Canberra Hospital, Canberra, ACT, Australia; [4]Medical School, The Australian National University, Canberra, ACT, Australia; [5]Machine Learning Research Group, Data61/CSIRO, The Australian National University, Canberra, ACT, Australia; [6]Faculty of Science and Technology, University of Canberra, Bruce, ACT, Australia; [7]Department of Future Technologies, University of Turku, Turku, Finland*

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Introduction Parkinson's Disease (PD) is associated with increased mortality and reduced quality of life. There is currently no accurate objective measure for use in diagnosis or assessment of severity. Analysis of postural sway may help in this regard. This systematic review aimed to assess the effectiveness of the various features currently used to analyse postural sway.
Methods Five databases were searched for articles that examined postural sway in both PD patients and controls. An effect size (ES) was derived for every feature reported in each article. The most effective features and feature-families were determined, along with the influence on these measures of data sampling rate and experimental condition.
Results 441 papers were initially retrieved, of which 31 met the requirements for analysis. The most commonly-used features were not the most effective (e.g. PathLength had an ES of 0.47 while TotalEnergy had an ES of 1.78). Decreased sampling rate was associated with decreased ES (e.g. ES of PathLength lowered from 1.12 at 100 Hz to 0.40 at 10 Hz). Being off medication was associated with a larger ES (e.g. ES of PathLength was 0.21 on medication and 0.83 off medication).
Conclusions Some measures of postural sway are better able to distinguish PD patients from controls than others. ES is enhanced by using a higher sampling rate and studying patients off medication. These results will inform future studies looking at postural sway in PD and contribute to the aim of finding an objective marker of the disease.

095 PREDICTING PARKINSON'S AND DEMENTIA WITH LEWY BODIES (PRE-D) RESEARCH STUDY – A SYDNEY-BASED LONGITUDINAL BIOBANKING PROGRAM

[1]Elie Matar*, [1]Kaylena A Ehgoetz Martens, [2]Maria Comas Soberats, [1]Glenda M Halliday, [1]Simon JG Lewis. *[1]Brain and Mind Centre, University of Sydney, Camperdown, NSW, Australia; [2]Woolcock Institute of Medical Research, Sydney, NSW, Australia*

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Introduction Idiopathic REM sleep behaviour(iRBD) disorder represents the most specific prodromal marker of an