2692 THE FUTURE IS IN OUR HANDS: SCREENING FOR PRECLINICAL ALZHEIMER'S DISEASE AT HOME USING AUTOMATED ANALYSIS OF HAND MOVEMENTS

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Objectives There are no low-cost population-level tests to help identify preclinical Alzheimer's disease (AD); this hinders drug development and targeted dementia prevention. New evidence suggests that hand movements change in preclinical AD. We evaluated the predictive accuracy of TAS Test (new online hand movement analysis website) for detecting preclinical AD biomarkers (plasma ptau181 and subtle episodic memory impairment) in cognitively asymptomatic adults.

Methods Participants completed TAS Test online at home: 10–30 second finger-tapping tests recorded with a keyboard and/or webcam. Movement features (frequency, rhythm, pauses etc) were extracted. Participants also completed online episodic memory tests (CANTAB) and some provided blood samples for ptau181 analysis. Linear regression models comprising hand movement features to predict CANTAB scores and ptau181 levels, adjusted for confounding, was compared to null models (with only confounders: age, gender, education level, anxiety and depression) using R2adj and AIC. ΔAIC > 2 denotes statistical difference.

Results 1,228 adults (mean (SD) age, 65.8 (7.4) years; 73.0% female) completed TAS Test and CANTAB; 459 underwent ptau181 analysis. The 3 step-key and alternate-key tapping tests improved prediction of asymptomatic episodic memory impairment; (ΔAICs=11.2 and 3.3; R2adjs=8.1% and 7.5% respectively) and ptau181 (3 step ΔAIC=7.0; R2adj=17.8%; alternate key ΔAIC=3.4; R2adj=17.4%). The highest performing webcam tests were dominant hand tapping (CANTAB ΔAIC= 2.9; R2adj=8.2%; ptau181 ΔAIC=2.4; R2adj=12.9%) and both hands dual-task tapping (CANTAB ΔAIC=3.0; R2adj=6.8%; ptau181 ΔAIC=8.7; R2adj=11.9%).

Conclusions TAS Test provides a home-based test for identifying preclinical AD risk and holds potential as a pre-screening tool for identifying cohorts for further investigation.

2693 OUTCOMES OF ENDOVASCULAR THROMBECTOMY IN ELDERLY PATIENTS AT WELLINGTON REGIONAL HOSPITAL

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Objectives Thrombectomy decisions in the elderly patients are often difficult, because the benefit/risk ratio is less favourable than in younger patients. Our aim was to evaluate the 90-day outcomes of elderly patients (aged $\geq$80 years) who underwent ET at Wellington Regional Hospital.

Methods Data from a prospectively maintained database of patients undergoing ET for AIS at Wellington Regional Hospital (WRH) between 1 July 2019 and 30 June 2022 were reviewed. Patients aged $\geq$80 years were included in the study, and their demographic, procedural and outcome variables, including 90-day modified Rankin Scale (mRS) score, and mortality were recorded.

Results A total of 49 elderly patients underwent ET during the study period: mean age 84.1 years, 53% (26/49) female, and 10% (5/49) Maori. All but one had a pre-morbid mRS of 0–2. Twenty-seven (55%) received thrombolysis prior to ET. Twenty-eight (57%) patients presented directly to WRH; with the remaining being transferred from a secondary hospital. The median time from onset to reperfusion was 319 minutes (IQR, 256–445). The mean NIHSS was 17.1 pre-procedure, and 10.7 at 24 hours post-procedure. Post-procedure reperfusion (TICI $\geq$ 2b) was achieved in 79.6% (39/49). At 90 days, functional independence (mRS 0–2) was observed in 24.5% (12/49), and a good functional outcome (mRS $\leq$ 3) was observed in 49.6% (23/49). The 90-day mortality was 32.7% (16/49).

Conclusion The rates of good functional outcome and mortality, in elderly patients undergoing ET at Wellington Regional Hospital, are similar to those reported in large clinical trials.

2694 MITOCHONDRIAL NEUROGASTROINTESTINAL ENCEPHALOPATHY (MNGIE): A TALE OF TWO SISTERS

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Objectives Mitochondrial neurogastrointestinal encephalopathy (MNGIE) is a rare autosomal recessive disorder caused by biallelic mutation in the thymidine phosphorylase (*TYMP*) gene. We present the case of a 27-year-old female with a five-year history of weight loss and abdominal pain, which was diagnosed as Crohn's disease. The onset of progressive sensorimotor neuropathy and hearing impairment prompted further investigation leading to the diagnosis of MNGIE.

Case A 27-year-old Assyrian female with consanguineous parents was admitted to hospital with recurrent abdominal pain and weight loss over a five-year period. She had multiple similar admissions in the previous three years complicated by small bowel perforation from severe diverticulosis and total parenteral nutrition for intestinal failure. This was extensively investigated and she had received diagnoses including Crohn's disease, small intestine bacterial overgrowth and superior mesenteric artery syndrome. She reported a two-year history of worsening hearing impairment and sensorimotor disturbance, leaving her predominantly bedbound. Examination revealed profound cachexia with body mass index 11kg/m^2 and a severe sensorimotor neuropathy with profound sensory ataxia. Audiometry showed bilateral severe sensorineural hearing loss and MR brain imaging showed extensive leukoencephalopathy. Genetic testing detected a homozygous *TYMP* mutation, establishing a diagnosis of MNGIE. She was commenced on platelet infusions however made no significant clinical improvement. Her younger sister with similar, but less severe, symptoms was subsequently diagnosed with MNGIE and is currently on regular platelet infusions whilst awaiting an orthotopic liver transplant.