2400 OUTCOMES OF REPERFUSION THERAPIES IN ACUTE ISCHEMIC STROKE AMONG AUSTRALIANS OVER THE AGE OF 90

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Introduction Most acute stroke trials exploring the benefits of reperfusion therapies such as intravenous thrombolysis (IVT) and endovascular clot retrieval (ECR) for acute ischaemic stroke have excluded super-elderly patients due to anticipated complications. However, the super-elderly represent the fastest-growing segment of the population, especially in developed nations, and many maintain their functional independence making them eligible for these therapies.

Method In this retrospective study, we explored the clinical outcomes of patients aged 90 years and older who presented to the Canberra Hospital over a period of 6 years, comparing those who received reperfusion therapies with those who were treated conservatively. Outcome was assessed as disability (modified Rankin Score, mRS) and death at 90 days following stroke onset.

Results 70 patients were included, 53 of whom were managed conservatively while 17 had undergone reperfusion therapies. Patients in the intervention group had slightly better premorbid mRS and higher NIHSS scores but there was no significant difference between control and intervention groups at 90-days assessed as mRS 3 and below (30.2% vs 35.3%, p=0.69) or mortality rates (39.6% vs 52.9%, p=0.33). Patients who received intravenous thrombolysis (with or without ECR) had poor clinical outcomes and very high mortality rates, unlike patients treated with ECR alone.

Conclusion The benefit of intravenous thrombolytic therapy for acute ischaemic stroke should be reconsidered in the super-elderly age group. These data suggest that IVT should not be offered to patients over 90 years old, though it is reasonable to continue to offer ECR alone in carefully-selected patients.

2301 FUNCTIONAL OUTCOMES OF ISCHAEMIC STROKE PATIENTS WITH KNOWN ATRIAL FIBRILLATION NOT ON THERAPEUTIC ANTICOAGULATION AT ADMISSION

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Objectives To retrospectively compare functional outcomes between patients with ischaemic stroke and known atrial fibrillation (AF) based on their anticoagulation status.

Methods 244 consecutive patients admitted to Central Coast Local Health District from 1 November 2019 to 30 October 2021 with ischaemic stroke and known history of AF were included in the study. 40 patients with a new AF diagnosis during the index admission were excluded. Univariate relationship between anticoagulation status, baseline clinical characteristics, and 90-day Modified Rankin score (mRS) was assessed. Chi-squared analysis and logistic regression was used for categorical and continuous variables respectively. A p-value of <0.05 was the cut-off for statistical significance.

Results 204 patients with an ischaemic stroke had documented AF prior to the index admission, of which 126 were anticoagulated.Mean pre-treatment NIHSS score was lower for anticoagulated patients (6.62 vs 8.47 p= 0.04). Mean baseline mRS did not significantly differ. Anticoagulated patients were more likely to reside in independent living. The median length of stay did not differ between groups. Non-anticoagulated patients were more likely to have large vessel occlusions (37.18% vs 23.81%, p=0.04) and more likely to receive tPA (15.38% versus 1.59%, p<0.01). There was no difference in rates of endovascular clot retrieval between groups (p>0.05). Poor functional outcome at 90 days (mRS >= 3) did not significantly differ between groups (p=0.51).

Conclusions Baseline anticoagulation was associated with milder stroke severity patients with known AF and an ischaemic stroke. There was no difference in functional outcomes at 90 days between groups.

2235 DISABILITY AND PREGNANCY IN MULTIPLE SCLEROSIS: RELATIONSHIPS WITH LEUKOCYTE TELOMERE LENGTH

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Background Ageing-related processes contribute to neurodegeneration and disability in multiple sclerosis (MS). Biomarkers of senescence such as leukocyte telomere length (LTL) could help personalise prognosis and treatment. A history of pregnancy has been shown to be protective against disability accumulation in women with MS[1]: it is unclear if this could be partly mediated by LTL. We aimed to cross-sectionally characterise LTL in an MS cohort, and to correlate LTL with disability and pregnancy history.

Methods We extracted DNA from the whole blood of 301 patients attending an MS clinic (Alfred Health, Melbourne) Expanded Disability Status Scale (EDSS) score and pregnancy history (for 191 females) were obtained at sample collection. Additional data were extracted from the MSBase Registry.[2] LTL was determined in base pairs (bp) using real-time polymerase chain reaction.[3]

Results Disability was associated with shorter telomere length, a relationship that was robust to multivariable adjustment for demographic and clinical factors including chronological age (adjusted LTL reduction per 1.0 increase in EDSS = 92.8bp, 95% CI = 5.4–180.2bp). In females with pregnancy data, there were no significant relationships between adjusted LTL and history of pregnancy (LTL increase of 41.8bp, 95% CI = -457.7–541.3bp) or number of pregnancies (LTL increase of 10.5bp per pregnancy, 95% CI = -175.8–196.8bp).

Conclusion LTL was independently associated with cross-sectional disability, which likely reflects the relationship between neurological reserve and biological ageing in MS. Although adjusted LTL did not significantly differ by pregnancy history, longitudinal analyses to assess relationships with disability progression are needed.