Neurology and Neuroscience
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Cardiovascular System

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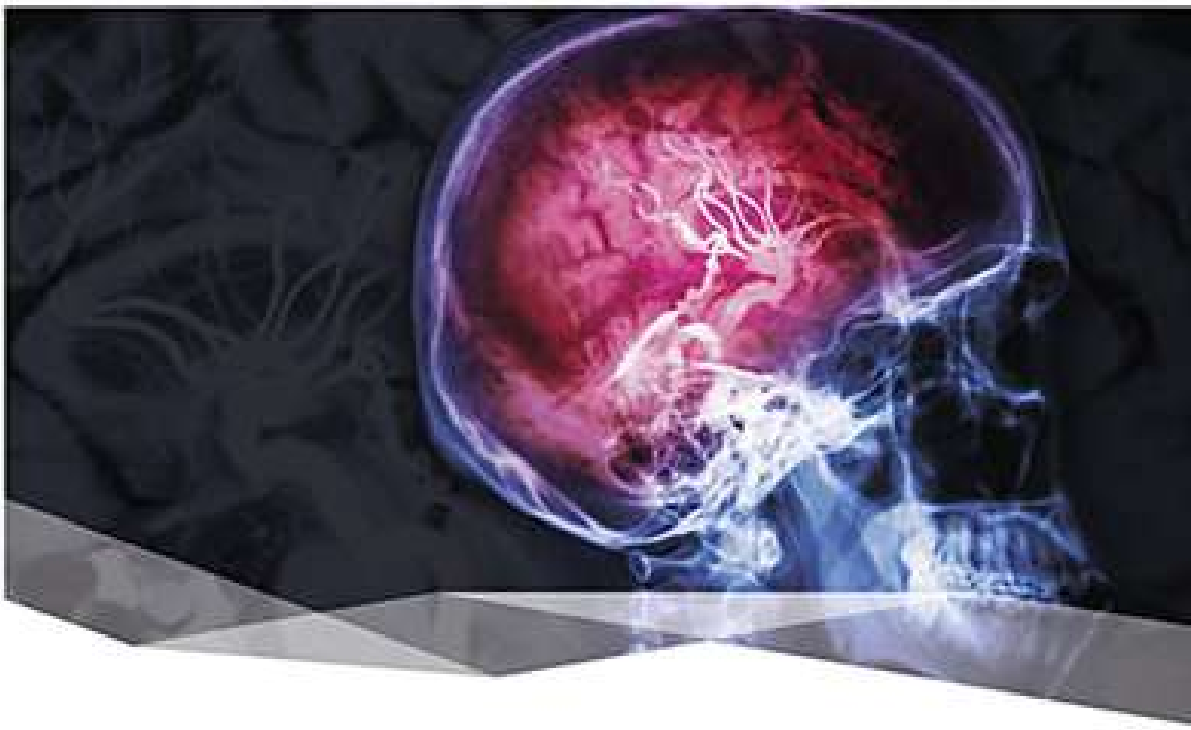
Cerebrovascular Diseases

Asia Pacific Stroke Conference 2025 (APSC)
Kobe, Japan, September 13–15, 2025

Abstracts

ASIA PACIFIC STROKE ORGANISATION



RESEARCH

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Cerebrovascular Diseases

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Reconciling imaging delays: MRI's contribution to precise treatment and improved stroke outcomes

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Background: Although the use of MRI in acute stroke evaluation may cause imaging delays, it offers essential detailed information that improves treatment decision-making, potentially resulting in superior patient outcomes. This study seeks to assess the correlation between door-to-decision time (DTD), time from patient arrival to the time decision following MRI findings to initiate the treatment for improved stroke recovery.

Method: A retrospective cohort study including 50 patients with ischemic stroke who received endovascular therapy, either thrombolysis, thrombectomy, or both. We analyzed DTD times with time decision and correlated these with changes in stroke severity improvement by analyzing the changes in the NIHSS category from admission to discharge using the chi-square test. The independent samples t- test was used to compare DTD times and severity changes.

Results: DTD time ($p = 0.188$) indicated that the data is normally distributed, with mean times of 73.9 minutes (SD = 34.19). The result indicated that 40% of patients had improved and a reduction of 50% from the severe group. The Chi-square test indicated no significant association between timing and recovery outcome ($X(1) = 0.102$, $p = 0.750$). The independent samples t-test revealed no statistically significant difference in DTD times ($t(48) = -0.290$, $p = 0.773$), with a mean difference of -3.311 and a 95% confidence interval ranging, indicating that the variances were equal.

Conclusion: The observed shift in NIHSS categories from admission to discharge indicates overall improvement in the patient cohort. Specifically, the reduction in patients with severe stroke and the increase in patients with mild stroke suggest that delayed imaging and decision-making with MRI may still contribute to positive recovery outcomes, despite the lack of statistical significance in relation to DTD times. Further research with a larger sample size and more detailed analysis could help clarify the potential benefits of MRI in stroke recovery.