Neurology and Neuroscience
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Cardiovascular System

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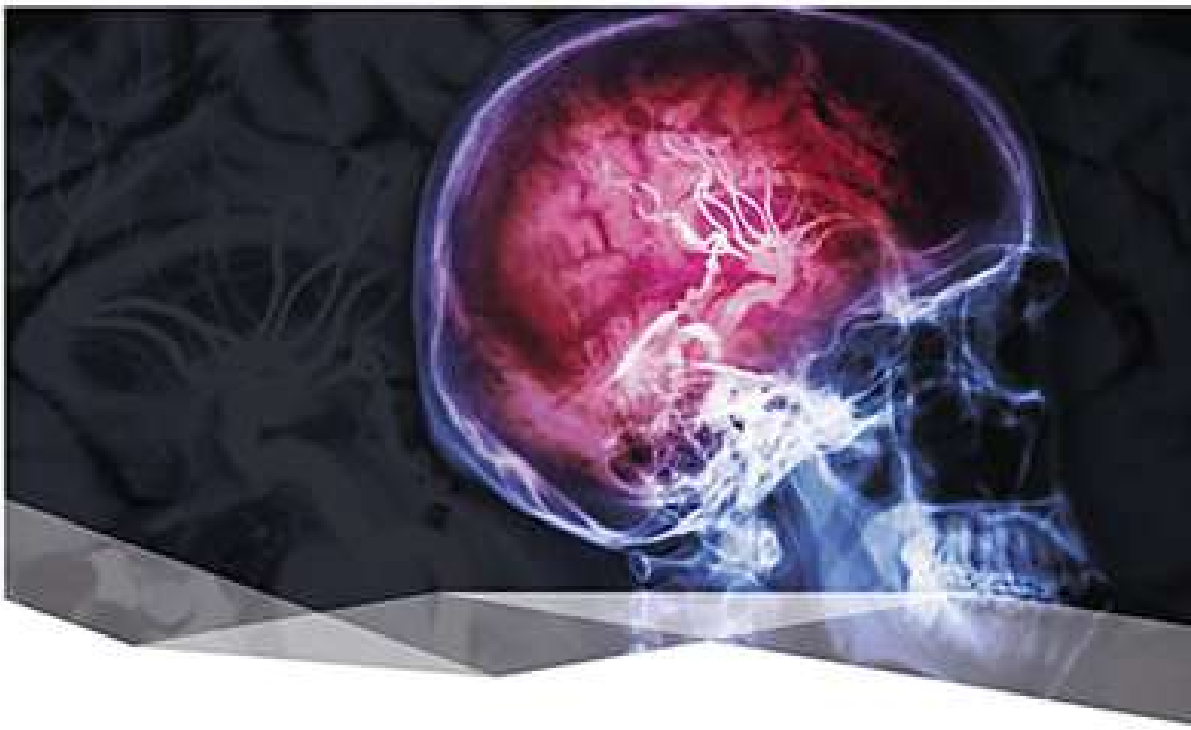
Cerebrovascular Diseases

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

Abstracts

ASIA PACIFIC STROKE ORGANISATION



RESEARCH

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MRI stroke workflow metrics: Evaluation of door-to-imaging and door-to-decision in guiding endovascular therapy

Izzna Shafinaz Abu Bakar[1,2], Ahmad Sobri Muda[1,3], Norhafizah Ehsan[2], Azliza Ibrahim[5], Rajeev Shamsuddin Periasamy[6], Noor Hayatul Al- Akmal Noralam[1], Anas Tharek[1,3], Muhammad Izzat Ahmad Sabri[1,7], Nurain Mahfar[4]

1.Radiology Department, HSAAS, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia
2.Radiology Department, Hospital Sultanah Aminah Johor Bahru, Malaysia
3.Pusat Klinikal Neurovascular & Strok, HSAAS, Universiti Putra Malaysia
4.Radiology Department, KPJ Damansara Specialist Hospital, Selangor, Malaysia
5.Neurology Department, HSAAS, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia
6.Radiology Department, International Islamic University Malaysia Kuantan, Pahang, Malaysia
7.Longe Medikal Sdn Bhd, Serdang, Selangor, Malaysia

Introduction: Efficient stroke management is critical in optimizing patient outcomes, where "time is brain" serves as a crucial guiding principle. This study focuses on evaluating MRI-based workflow metrics, specifically Door-to-Imaging (DTI) and Door-to-Decision (DTD), aiming to understand their roles in guiding endovascular therapy in stroke care. Despite previous findings suggesting faster treatment times improve outcomes, it remains unclear how these metrics and MRI influence treatment decisions.

Method: A total of 220 patients were included, 47 patients receiving EVT and 173 patients not receiving either thrombolysis or thrombectomy. The independent variables were Door-to-Imaging (DTI) and Door-to-Decision (DTD) times, both in minutes. The dependent variable was the subsequent treatment of endovascular therapy. Statistical analysis were descriptive statistics, Mann-Whitney U tests for group comparison, and binary logistic regression to examine the association between DTI/DTD and endovascular therapy.

Result: Descriptive analysis revealed median DTD of 65 minutes (IQR : 98-50) and DTI times of 45 minutes (IQR: 69-35) for patients with endovascular treatment and DTD of 75 minutes (IQR : 100-58.5) and DTI times of 57 minutes (IQR: 76- 42.5) for those without. The Mann-Whitney U test showed significant differences between groups in both DTD (U = [3513], p = [0.052]) and DTI (U = [3177], p = [0.022]). Logistic regression analysis indicated that neither DTD nor DTI significantly predicted treatment received ($p > 0.05$), with overall models demonstrating limited explanatory power (-2 Log Likelihood = [225], Pseudo R-squared = [0.018]). Despite differences in timing metrics between groups, these variables do not strongly influence treatment decisions within this cohort. Although shorter DTD and DTI times may facilitate endovascular therapy, neither metric significantly predicted treatment received in this cohort.

Conclusion: This suggests limited predictive value of these timing measures, potentially influenced by data limitations on patients receiving endovascular therapy, but emphasizes the overarching principle that "time is brain" in stroke management.