

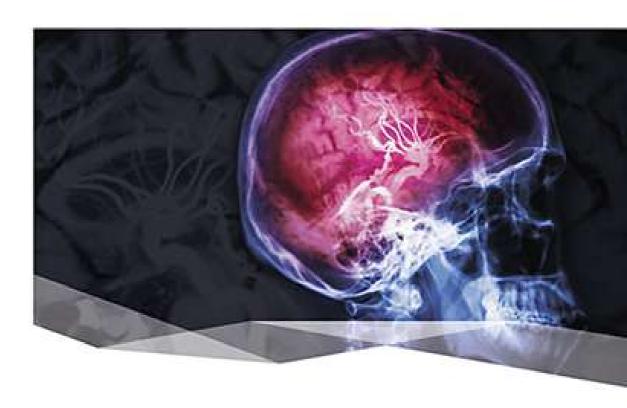
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Cerebrovascular Diseases

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Abstracts







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Pattern of post-thrombectomy hemorrhages in angiographic cone beam computed tomography (CBCT)

Rajeev Shamsuddin Perisamy^{1,6}, Ahmad Sobri Muda^{2,6}, Anas Tharek^{2,6}, Mohamad Syafeeq Faeez Md Noh^{2,6}, Anna Misyail Abdul Rashid^{3,6}, Ahmad Luqman Md Pauzi⁴, Siti Azleen Mohamad^{5,7}, Mohd Faizullah Abdul Manaf², Nazhirah Azmi²

- 1. Kulliyyah of Medicine, International Islamic University Malaysia, Kuantan
- 2.Department of Radiology, Hospital Sultan Abdul Aziz Shah, Universiti Putra Malaysia
- 3. Department of Neurology, Universiti Putra Malaysia
- 4. Emergency Unit, Universiti Putra Malaysia
- 5. Department of Neurosurgery, Hospital Kuala Lumpur, Malaysia
- 6. Pusat Klinikal Neurovaskular & Strok, HSAAS, Universiti Putra Malaysia
- 7. Department of Neurosurgery, Hyogo Medical University, Japan

Introduction: Intracranial hemorrhage (ICH) is a known complication following mechanical thrombectomy (MT), associated with poor outcomes and increased mortality. Early detection is critical but challenging with conventional imaging. This study explores the role of cone beam computed tomography (CBCT) in detecting early post-thrombectomy hemorrhagic changes.

Methods: We retrospectively analyzed 118 MT cases performed between February 2021 and August 2023. CBCT scans were obtained pre- and immediately post-thrombectomy, followed by 24-hour non-contrast CT and day-5 SWI MRI. Eighteen patients with confirmed ICH were included. Image features analyzed included central hyperdensity, mass effect, perilesional edema, and differentiation from contrast staining.

Results: All 18 patients exhibited central hyperdensity on post-MT CBCT. Sixteen demonstrated accompanying mass effect and 18 had perilesional edema. Peripheral contrast stains were noted in 15 cases. On follow-up imaging, 100% showed persistent hyperdensity and blooming artifacts on SWI MRI, confirming hemorrhage. Residual contrast stain was rare (3 cases) on 24-hour CT.

Conclusion: CBCT is a valuable adjunctive tool for early detection of ICH following thrombectomy. Features such as central hyperdensity with mass effect and perilesional edema strongly correlate with confirmed hemorrhage on standard imaging. CBCT may enhance clinical decision-making, reducing dependence on repeated conventional imaging while minimizing radiation exposure.