Posterior circulation ischemic stroke trombectomy—outcome of a single centre 24 months experience

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Abstract

Background and Objective: The natural history of posterior circulation (PC) artery occlusion is devastating, with morbidity rates increasing up to 80%. Early recanalization seems to be associated with better clinical outcomes; however, the best management is still uncertain. The aim of this study was to investigate the outcome of acute-phase thrombectomy involving PC.

Methods: From January 2016 to January 2018, 215 patients were admitted for endovascular treatment at our centre. We selected the ones who underwent thrombectomy for acute stroke involving PC, and retrospectively reviewed clinical and angiographic records to investigate the outcome. Thrombectomy success was defined as Thrombolysis in Cerebral Infarction (TICI) ≥ 2b, and good clinical outcome as a value in the modified Rankin Scale at 90 days (mRS) ≤ 3.

Results: A total of 19 patients were treated with thrombectomy for acute ischemic stroke involving PC. The median age was 68.11 years and 62.48% of the patients were male. The mean initial NIHSS on admission was 18.4. The occlusion sites included the vertebral artery (VA) (n=1), basilar artery (BA) (n=16), VA and BA (n=1), and posterior cerebral artery (n=1). Successful recanalization (TICI ≥ 2b) was possible in 16 of 19 patients (84%). At 3 months, 47% of the patients had mRS <= 3 (good to moderate clinical outcome), 37% had mRS 4-5 (poor clinical outcome), and 16% had mRS = 6 (dead).

Conclusion: Mechanical thrombectomy for the ischemic stroke of the PC was found to be associated with successful recanalization. We also observed favourable clinical outcome in a high percentage of these patients.