Endovascular treatment of acute basilar artery occlusion

The effectiveness of mechanical thrombectomy (MT) for acute basilar artery occlusion (ABAO) remains unknown. We evaluated the feasibility, safety, and efficacy of endovascular treatment for ABAO.

We retrospectively investigated patients with ABAO who underwent MT, using modern stent retrievers and an aspiration device, between January 2015 and December 2017 at 12 comprehensive stroke centers. Functional outcomes and 90-day mortality were analyzed as primary outcomes.

Forty-eight patients were included. Good outcome (modified Rankin Scale mRS 0-2) was achieved in 20/48 patients and the all-cause 90-day mortality rate was 25%. Successful recanalization (modified Thrombolysis In Cerebral Infarction [mTICI] grade 2b and 3) was achieved in 47/48 patients. National Institutes of Health Stroke Scale, posterior circulation Alberta Stroke Program Early CT Score (pc-ASPECTS), DWI Brain Stem Score, mTICI (3 > 2b), and intracranial hemorrhage were significantly different between good and poor functional outcome groups. The occlusion site of BA was significantly different between patients with moderate outcome (mRS 0-3) versus others. We found that age, pc-ASPECTS and mTICI were significantly associated with functional outcomes in the logistic regression model. : MT with stent retrievers and an aspiration device for ABAO results in high successful recanalization and good outcomes. Further studies are required to confirm our results [1].

[1]

Kaneko J, Ota T, Tagami T, Unemoto K, Shigeta K, Amano T, Ueda M, Matsumaru Y, Shiokawa Y, Hirano T; TREAT Study Group. Endovascular treatment of acute basilar artery occlusion: Tama-REgistry of Acute Thrombectomy (TREAT) study. J Neurol Sci. 2019 Apr 12;401:29-33. doi: 10.1016/j.jns.2019.04.010. [Epub ahead of print] PubMed PMID: 31005761.