

Tandem occlusion treatment

In [tandem occlusion](#), there are generally three treatment options: [thrombectomy](#) alone, thrombectomy with internal [carotid artery stenting](#), and [thrombectomy](#) with internal [carotid artery angioplasty](#).

[Carotid endarterectomy](#) in patients with [tandem lesions](#) has not been associated with increased postoperative [stroke](#) rates ^{1) 2)} Recent case series also report success with [endovascular treatment](#)

[Carotid artery stenting](#) (CAS) may be feasible in the hyperacute period. However, there are potential higher rates of perioperative complications in the hyperacute group, primarily occurring in [mechanical thrombectomy](#) (MT) patients with acute [tandem occlusion](#). A larger [multicenter](#) study may be needed to further corroborate this findings ³⁾.

[Carotid artery stenting](#) plus [mechanical thrombectomy](#) is an effective treatment for acute ischemic stroke patients with [tandem occlusion](#) of the anterior circulation. However, there is limited data supporting the safety of this approach in patients treated with prior intravenous thrombolysis (IVT). We aimed to investigate the safety of emergent carotid artery stenting-mechanical thrombectomy approach in stroke patient population treated with prior IVT Methods:

—We assessed patients with acute ischemic stroke because of atherosclerotic tandem occlusion that were treated with emergent carotid artery stenting-mechanical thrombectomy approach from the multicenter observational Thrombectomy in Tandem Lesions registry. Patients were divided into 2 groups based on pretreatment IVT (IVT versus no-IVT). Intracerebral hemorrhages were classified according to the European Cooperative Acute Stroke Study II criteria. Results:

Among 205 patients included in the present study, 125 (60%) received prior IVT. Time from symptoms onset-to-groin puncture was shorter (234 ± 100 versus 256 ± 234 minutes; $P=0.002$), and heparin use was less in the IVT group (14% versus 35%; $P<0.001$); otherwise, there was no difference in the baseline characteristics. There was no significant difference between the IVT and no-IVT groups in the rate of symptomatic intracerebral hemorrhage (5% versus 8%; $P=0.544$), parenchymal hematoma type 1 to 2 (15% versus 18%; $P=0.647$), successful reperfusion (modified Thrombolysis in Cerebral Ischemia 2b-3), or 90-day favorable outcome (modified Rankin Scale score of 0-2 at 90 days). The 90-day all-cause mortality rate was significantly lower in the IVT group (8% versus 20%; $P=0.017$). After adjusting for covariates, IVT was not associated with symptomatic intracerebral hemorrhage or 90-day mortality Conclusions:

Emergent carotid artery stenting-mechanical thrombectomy approach was not associated with an increased risk of hemorrhagic complications in tandem occlusion patients who received IVT before the intervention ⁴⁾.

1)

Faries PL, Chaer RA, Patel S, et al. Current management of extracranial carotid artery disease. Vasc Endovascular Surg. 2006; 40:165-175

2)

Rouleau PA, Huston J,3rd, Gilbertson J, et al. Carotid artery tandem lesions: frequency of angiographic detection and consequences for endarterectomy. *AJNR Am J Neuroradiol*. 1999; 20: 621-625

3)

Limaye K, Quispe-Orozco D, Zevallos CB, Farooqui M, Dandapat S, Mendez-Ruiz A, Ansari S, Abdelkarim S, Dajles A, Derdeyn C, Samaniego EA, Ortega-Gutierrez S. Safety and Feasibility of Symptomatic Carotid Artery Stent-Assisted Revascularization within 48 Hours after Symptoms Onset. *J Stroke Cerebrovasc Dis*. 2021 Mar 22;30(6):105743. doi: 10.1016/j.jstrokecerebrovasdis.2021.105743. Epub ahead of print. PMID: 33765635.

4)

Anadani M, Spiotta AM, Alawieh A, Turjman F, Pötin M, Haussen DC, Nogueira RG, Papanagiotou P, Siddiqui AH, Lapergue B, Dorn F, Cognard C, Ribo M, Psychogios MN, Labeyrie MA, Mazighi M, Biondi A, Anxionnat R, Bracard S, Richard S, Gory B; TITAN (Thrombectomy In TANdem Lesions) Investigators. Emergent Carotid Stenting Plus Thrombectomy After Thrombolysis in Tandem Strokes: Analysis of the TITAN Registry. *Stroke*. 2019 Aug;50(8):2250-2252. doi: 10.1161/STROKEAHA.118.024733. Epub 2019 Jun 17. PubMed PMID: 31577899.

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