



DEBATE

Acute carotid artery stenting in symptomatic high-grade cervical carotid artery stenosis: is it a valid option?

Ary de Sousa^{1,2}, Patrícia Ferreira², Sofia Galego², Isabel Fragata³, Ana Paiva Nunes², and João Reis³

From the Lisbon Stroke Summit, Lisbon, Portugal. 7–8 April 2017.

Abstract

Introduction: The safety and efficacy of emergency carotid artery stenting (CAS) for patients with acute ischemic stroke resulting from internal carotid artery (ICA) stenosis are not established.

Results: A 76-year-old male presented to his family doctor complaints of nausea and vomiting since the previous day and left hemiparesis with a 3-hour symptom onset. His previous medical history was positive for hypertension, ischemic heart disease, dyslipidaemia, alcohol abuse, past smoking and sleep apnoea. He was transported to our institution after pre-hospital Stroke Code activation. Initial evaluation revealed flattened left nasolabial fold, left arm pronator drift and mild sensory loss in his left arm (NIHSS 4). According to the patient, the neurological deficits were improving. Brain CT scan was unremarkable and CT angiography revealed bilateral diffuse atherosclerosis with moderate-to-severe stenosing plaques at the bilateral carotid bifurcation. Given the minor and regressing clinical picture, it was decided not to treat with thrombolytic therapy. Brain MRI showed multiple hyperintensities

on DWI in the right middle cerebral artery (MCA) territory involving the cortex, with significant DWI-FLAIR mismatch. Extracranial ultrasound (US) confirmed severe proximal bilateral ICA stenosis, with hemodynamic repercussion in the right ophthalmic artery. Transcranial US revealed microembolic signals in the right MCA. Given the active embolic source, he was started on clopidogrel-aspirin combined therapy and a single dose of abciximab for CAS. The patient was submitted to a conventional cerebral angiography on the following day, and bilateral CAS was performed, followed by mechanical angioplasty with intra-stent balloon. Follow-up Doppler-US examination confirmed stent patency. The patient was discharged with mild neurological improvement (NIHSS 3) and maintained under clopidogrel-aspirin combined therapy until reassessment in an outpatient setting.

Conclusion: This case illustrates that, although carotid stenting is not recommended for the acute phase treatment of symptomatic stenosis, in selected patients it can be a valid treatment option.

¹Neurology Department, Centro Hospitalar de Lisboa Central, Lisbon, Portugal

²Cerebrovascular Unit, Centro Hospitalar de Lisboa Central, Lisbon, Portugal

³Neuroradiology Department, Centro Hospitalar de Lisboa Central, Lisbon, Portugal

Citation: Sousa et al. Acute carotid artery stenting in symptomatic high-grade cervical carotid artery stenosis: is it a valid option?. *International Journal of Clinical Neurosciences and Mental Health* 2017; 4(Suppl. 1):D4

Published: 05 April 2017



Open Access Publication Available at <http://ijcnmh.arc-publishing.org>

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