Thrombectomy: when should we stop?

Joana Branco Ferrão1, Bruno Cruz Maia1, and Ana Paiva Nunes1

From the Lisbon Stroke Summit, Lisbon, Portugal. 5–6 April 2019.

Abstract

Endovascular treatment is an effective approach to acute stroke. Clinical assessment of eligibility to treatment includes neurologic examination, time of onset and imaging of brain parenchyma, large vessel patency and documentation of a mismatch in CT or MRI. Assessment of other hemodynamic criteria are usually not taken into account, namely the extent of collateralization. Different outcomes for thrombectomy treated patients are often observed and probably reflect discrepancies in collateral development in the acute phase. We present the case of a 64-year-old male patient, with prior medical history of hypertension, HIV-2 infection, and smoking habits, who presented at the emergency department with wax and waning neurological deficits of right hemiparesis, central facial palsy and dysarthria. NIHSS initially was 4 and shortly after increased to 8. No parenchymal lesion was noted on CT scan and CTA revealed an occlusion of the left internal carotid artery (ICA) on its cervical segment. Angiography was performed and confirmed left ICA occlusion on its origin by a thrombus. Intracranial circulation disclosed extensive collateral circulation, with middle cerebral artery receiving its main supply from the contralateral hemisphere via anterior communicating artery. At this point it was decided to not undergo treatment of the carotid occlusion. MRI performed on the next day was positive for an ischemic lesion on the left thalamus and carotid ultrasound also showed a thrombus on the origin of the left ICA. Significant clinical improvement occurred over the following days, with the patient being discharged with a NIHSS of 2. Antiplatelet therapy and optimization of vascular risk factors management was decided. On a 3-month follow-up, patient was asymptomatic. This case illustrates a good outcome on a patient with a large vessel occlusion stroke who was not treated with thrombectomy. Visualization of excellent collateral flow on angiography triggered the decision not to treat. Search for new clinical factors that may influence patient’s response to endovascular treatment is warranted and is an ongoing subject for discussion.

1Medicina 2,3 HSAC, Unidade CerebroVascular HSJ, Unidade Cerebrovascular HSJ