



POSTER

Direct puncture of the carotid artery for thrombectomy in acute stroke patients—back to the old Egas Moniz technique

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Abstract

Background: In the late twenties, Egas Moniz introduced cerebral angiography by injecting a radio-opaque medium directly in the cervical carotid artery. The femoral Seldinger technique replaced direct carotid access, and is the current state of art. However, in particularly difficult anatomical configurations, percutaneous access through the carotid artery may be justified.

Material and Methods: Retrospective review of clinical and imaging data of stroke patients, submitted to Digital Subtraction Angiography (DSA) at Hospital São José by direct carotid artery puncture, between January 2014 and December 2016.

Results: A total of 3 patients, referred to our hospital under the acute stroke protocol, were submitted to DSA by direct carotid artery puncture for large vessel occlusion stroke. Significant tortuosity and difficult anatomy did not allow selective catheterization through femoral access. Mechanical

thrombectomy with aspiration system was performed in two of them, with successful recanalization, TIC1 3. In the third patient, by the time the vessel was reached, spontaneous recanalization had occurred. Two of these patients were also submitted to intravenous thrombolysis, so a closure device was used; in the third, a manual compression was done to achieve hemostasis. There were no periprocedural complications. Post-procedural complications included percutaneous hematoma in one patient, which resolved spontaneously, with no need for intubation.

Conclusions: At a time when endovascular treatment is part of the guidelines for the treatment of large vessels occlusion strokes, high-risk patients with no femoral access or difficult anatomy may benefit from direct carotid artery puncture, despite the risks involved.

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