

Carotid artery puncture

The transfemoral approach is a common route for catheterization of the supra-aortic vessels in [neuroendovascular treatment](#). However, in some cases, the patient's anatomy prevents transfemoral catheterization or distal access to the carotid s. In such cases, direct carotid exposure (DCE) for neuroendovascular approaches may be used to treat cerebrovascular diseases.

Challenging anatomy for carotid artery access can result in a delay to achieve successful recanalization in patients with [acute ischemic stroke](#).

Direct carotid artery puncture is a feasible alternative to transfemoral artery access in cases of stroke with difficult anatomy, including unfavorable arch type, carotid tortuosity, or an ostial lesion ¹⁾.

In such patients, a combination of neuroendovascular treatment and surgery in a hybrid operating room with angiography is preferred ²⁾.

In cases where extensive perioperative anticoagulation is mandatory, bleeding at the puncture site may be a serious problem and can be controlled more effectively through an open surgical approach than by percutaneous maneuvers ³⁾.

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Dorfer C, Standhardt H, Gruber A, Ferraz-Leite H, Knosp E, Bavinzski G. Direct percutaneous puncture approach versus surgical cutdown technique for intracranial neuroendovascular procedures: technical aspects. World Neurosurg. 2012 Jan;77(1):192-200. doi: 10.1016/j.wneu.2010.11.007. Epub 2011 Nov 17. PubMed PMID: 22099561.

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