

Correlation of ulcerated plaque image with intraoperative findings

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Submitted: April 29, 2023; Reviewed: July 16, 2023; Accepted: August 4, 2023.



Grading of carotid stenosis is the main factor for risk stratification and treatment decision. However, there is increasing evidence that plaque composition and surface morphology play an important role in the outcome of patients. A 74-year-old man with history of coronary artery disease was referred due to a left carotid bruit. The patient referred a previous episode of transient right upper limb sensory and motor loss, less than six months ago. Doppler ultrasound identified a >70% stenosis of the proximal internal carotid artery (ICA) using the North American Symptomatic Carotid Endarterectomy Trial (NASCET) method: Peak Systolic Velocity 240cm/s, End Diastolic Velocity 38cm/s, ICA/common carotid artery ratio 2.6.

Morphologically, a mixed plaque with a large hypoechoic component was depicted, which was confirmed by Computed Tomography Angiography (left, black arrow). The patient underwent endarterectomy of the carotid bifurcation with Dacron patch closure, with intraoperative confirmation of an ulcerated plaque (right). The patient was discharged on the 8th postoperative day.

Keywords: Carotid artery stenosis; Carotid Artery Plaque

Conflicts of interest: None

Funding: None

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Angiol Vasc Surg 2023;19(3):201
DOI: <https://doi.org/10.48750/acv.545>

