Symptomatic free-floating carotid thrombus extending to the skull base

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Video

Neurology.org/cp

A 58-year-old woman presented to the emergency department with progressive amaurosis fugax with a background of hypertension, hypercholesterolemia, and current smoking. Carotid duplex ultrasound demonstrated an 80%–99% stenosis at the origin of the right internal carotid artery (ICA). CT angiogram revealed a high-grade focal stenosis of the origin of the right ICA with a 7-cm free-floating thrombus (FFT) extending to the skull base (figure 1, video 1 at Neurology.org/cp). The incidence of FFT in patients undergoing carotid imaging has been reported as 0.05%–0.7%.¹ It is more frequently reported in men than women, with a ratio of nearly 2:1. The ICA is the most commonly affected (75%), with atherosclerosis being the most common associated pathology. It is a highly unstable condition with acute neurologic symptoms present in greater than 90% of cases. Urgent management with anticoagulation alone, anticoagulation followed by delayed carotid surgery, or immediate carotid surgery (open and endovascular) is described, but there is no evidence of superiority of any of these strategies (level of evidence Class IV).^{1,2} Our patient underwent immediate right carotid thromboendarterectomy with retrieval of complete thrombus (figure 2, video 2 at Neurology.org/cp). The postoperative course was uncomplicated and she was discharged 3 days later with no further episodes of amaurosis fugax and normal vision.

Figure 1 Preoperative imaging

Axial CT angiogram images demonstrate thrombus from the carotid artery bifurcation (A, arrow) into the internal carotid artery (B, C) extending to the skull base (D) with characteristic circular halo sign (arrows in B, C, and D).

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Figure 2 Extracted thrombus and postoperative imaging

(A) Intraoperative picture of the successfully extracted thrombus, measuring 7 cm with smooth tapered endpoints, confirming in toto thrombectomy. (B) CT angiogram reconstruction demonstrates 7-cm length of the thrombus extending to the skull base.

REFERENCES

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