

IMAGES IN EMERGENCY MEDICINE

Neurology

Female with left-sided numbness and weaknessShane C. Gately BS¹ | Janet A. Smereck MD² | Jonathan E. Davis MD² ¹ Department of Emergency Medicine, Georgetown University, Washington, D.C., USA² Department of Emergency Medicine, Georgetown University & MedStar Health, Washington, D.C., USA**Correspondence**

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Email: jdthere@yahoo.com**1 | PATIENT PRESENTATION**

A 34-year-old woman presented to the emergency department with 45 minutes of left facial, arm, and leg numbness; she felt off balance when ambulating because of the left foot numbness. She denied headache, nausea, or speech changes. She reported occasional tension-type headaches and previous episodes of transient left sided numbness. She lacked known cardiovascular risk factors and denied a family history of stroke. On examination, the patient was normotensive, with diminished perception to light touch on the left side of her face, left arm, and left leg without focal motor weakness. Gait appeared normal. A non-contrast cranial computerized tomography (CT) was obtained, followed by CT angiography (CTA).

2 | DIAGNOSIS: CAROTID WEB

CT imaging of the brain without contrast revealed no abnormalities. CTA of the head and neck, however, demonstrated a carotid web at the origin of the right internal carotid artery, seen as a thin septate filling defect on coronal view (Figure 1) and a shelf-like projection from the posterior wall of the carotid bulb on sagittal view (Figure 2), particularly evident when compared with the contralateral carotid artery (Figure 3). No infarction was demonstrated. Symptoms resolved in less than an hour. She was referred for outpatient management following a brief hospitalization.

Carotid webs are intraluminal projections within the carotid bulb thought to arise from fibromuscular dysplasia.^{1,2} Turbulent blood flow produced by a carotid web may lead to stasis, ipsilateral cerebral ischemia, or embolic stroke.^{3,4} One study showed a 2.5% prevalence of carotid webs in patients with acute ischemic stroke.⁵ Management may

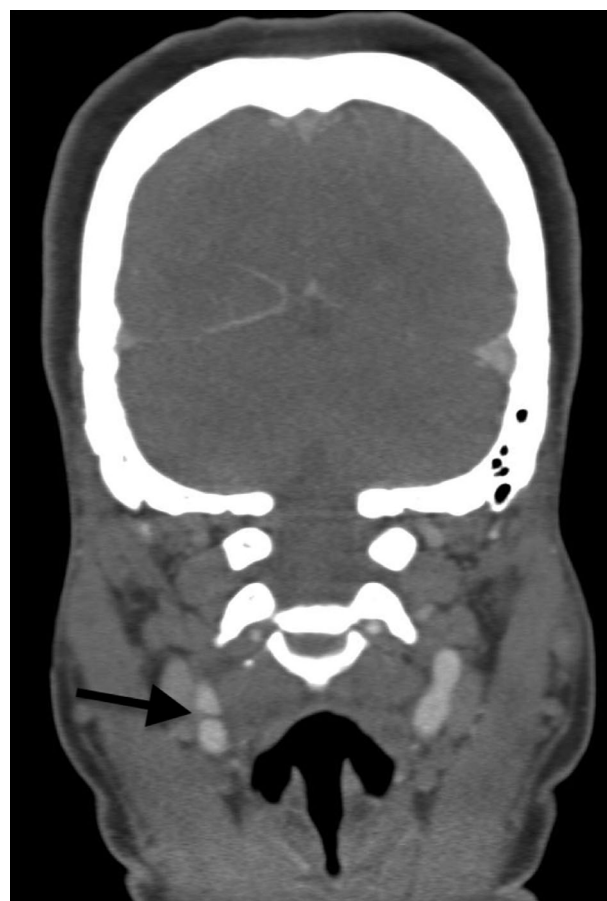


FIGURE 1 Computed tomography angiography of the head and neck demonstrating a carotid web at the origin of the right internal carotid artery, seen as a thin septate filling defect on coronal view (arrow)

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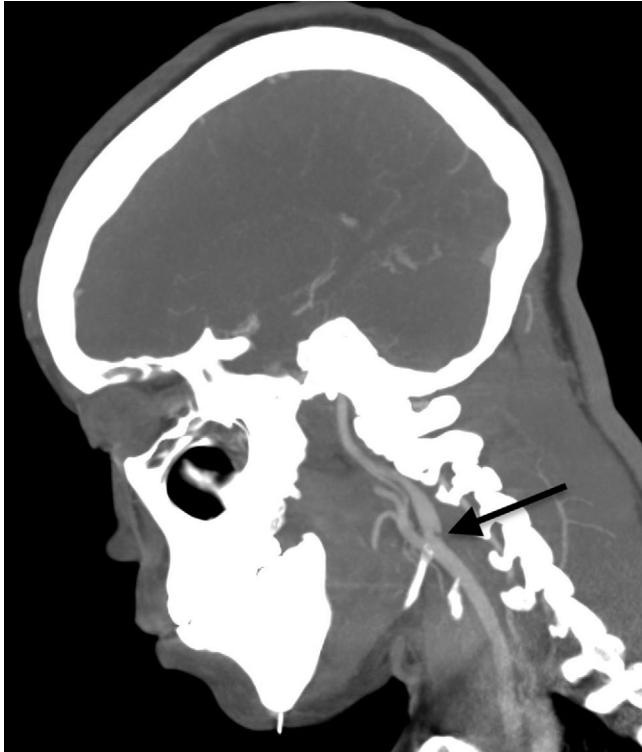


FIGURE 2 Shelf-like projection from the posterior wall of the carotid bulb on sagittal view (arrow)

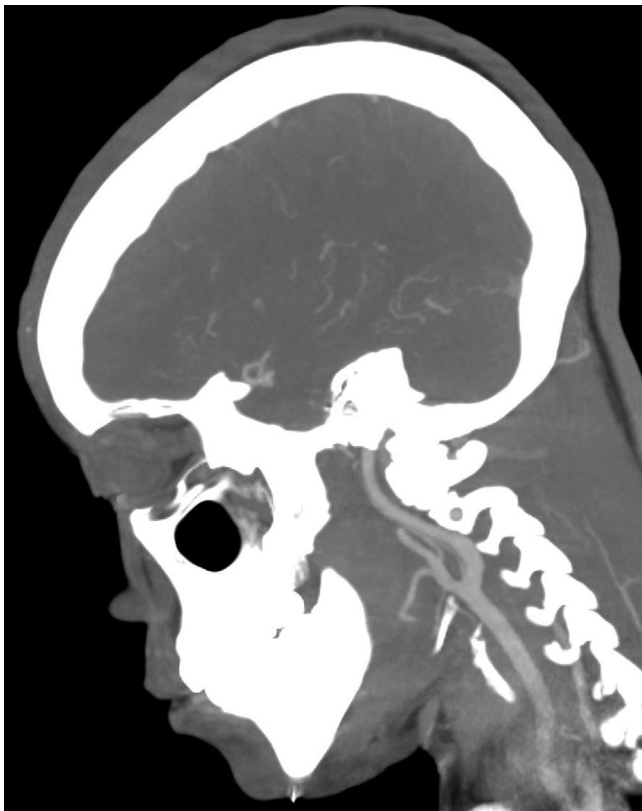


FIGURE 3 Normal contralateral carotid artery

include antiplatelet therapies and intravascular stenting in selected cases.¹

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