RESIDENT & FELLOW SECTION

Teaching NeuroImage: Carotid Web

A Thrombogenic Nest Not to Miss

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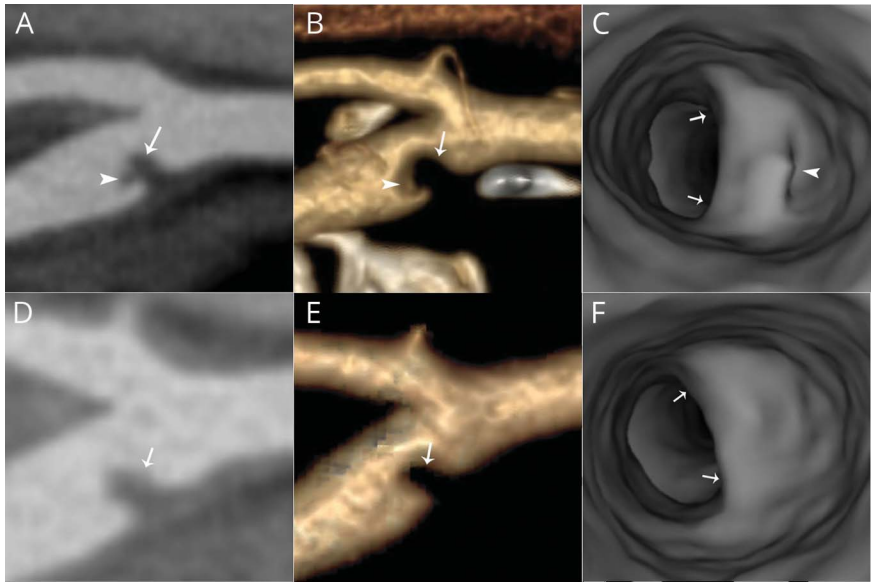
Neurology® 2022;98:466-467. doi:10.1212/WNL.0000000000013321

Figure 1 Right Carotid CT Angiography on Admission and After Antithrombotic Treatment



Oblique sagittal thin-slice reformatted (A, D), volume-rendered (B, E) and intraluminal volume-rendered images (C, F) showing the diaphragm-like web attached to the posterior wall of the carotid bulb (arrows). A beak-like protuberance on the cephalad web surface corresponds to in situ thrombus (A–C, arrowheads), missing at follow-up (D–F) and confirming thrombus resorption.

A 61-year-old woman suffered a territorial infarction because of right middle cerebral artery occlusion. CT angiography and ultrasonography showed an ipsilateral carotid web with a small superimposed thrombus (Figures 1 and 2). After 2 weeks on enoxaparin and aspirin, the thrombus resolved completely and the patient underwent uncomplicated carotid stenting, in the absence of other stroke causes. Carotid web, an intimal variant of fibromuscular dysplasia, is an underestimated cause of cryptogenic stroke, notorious for being missed or taken for atheroma by ultrasonography.[1] It may have a high rate of stroke recurrence under antiplatelets owing to thrombus nesting along its blood-stagnation-causing downstream surface.[2]

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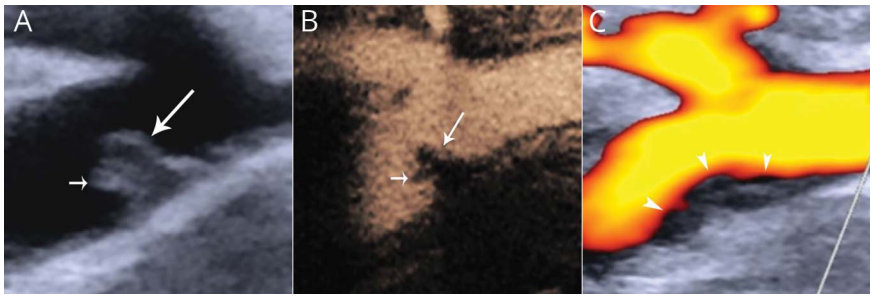
Figure 2 Right Carotid Ultrasonography on Admission



Longitudinal B-mode (A) and SonoVue-enhanced image (B) showing the echogenic and irregular web protruding into the lumen (long arrows) along with the superimposed distal web surface thrombus (short arrows). Compare with the "beak" inFigure 1, A–C. On power Doppler flow imaging, the web mimics the appearance of a nonstenosing isoechogenic atheroma (C, arrowheads).

Study Funding

The authors report no targeted funding.

Disclosure

The authors report no disclosures relevant to the manuscript. Go to Neurology.org/N for full disclosures.

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