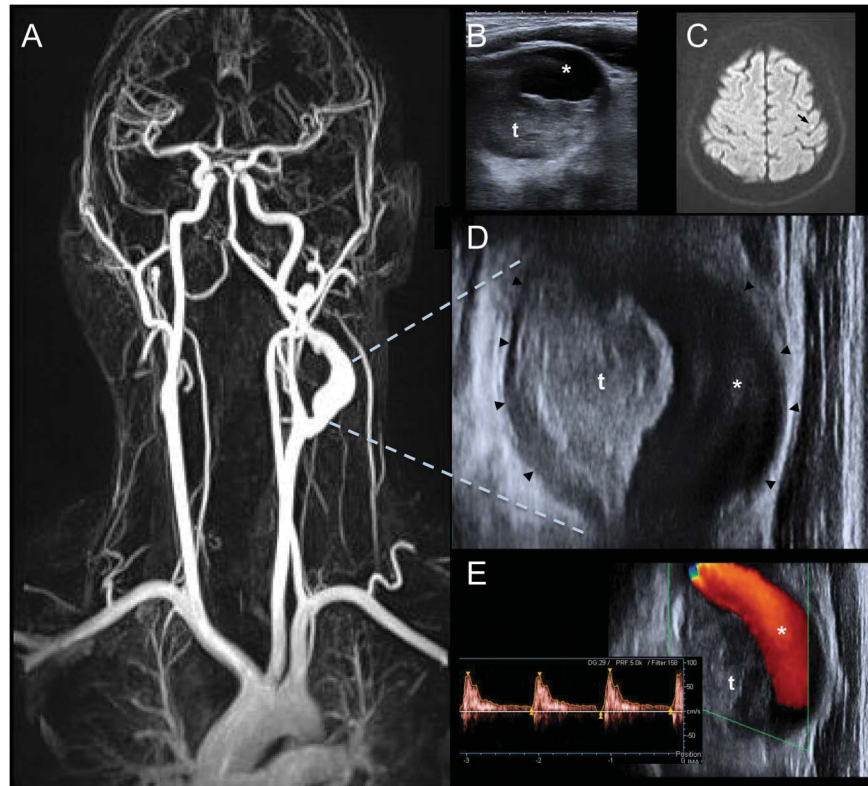


Teaching NeuroImages: Extracranial internal carotid artery aneurysm causing embolic stroke

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Figure MRI and carotid ultrasound findings



(A) Magnetic resonance angiography: fusiform aneurysm of left proximal internal carotid artery (ICA). Carotid ultrasound, (B) transverse and (D) longitudinal views: distinct widening of left proximal ICA (vessel wall, arrowheads) and intraluminal thrombus (t). (C) MRI-diffusion-weighted imaging: acute embolic infarction in the left precentral gyrus (arrow). (E) Normal Doppler flow analysis in the remaining lumen (*).

A 42-year-old man with no history of trauma experienced acute numbness in his right arm and leg. A pulsating left cervical tumor was noted on clinical examination. Carotid ultrasound demonstrated significant widening of the left proximal internal carotid artery (ICA) and a large nonocclusive hypoechoic structure compatible with an aneurysm and intraluminal thrombus (figure, B, D, and E). MRI confirmed a fusiform extracranial ICA aneurysm and showed a left-sided small embolic stroke (figure, A and C). The patient underwent anticoagulation with low-molecular-

weight heparin and eventually surgical treatment (i.e., resection and saphenous vein graft interposition). Histopathology revealed severe atherosclerosis. Extracranial ICA aneurysms are rare and can cause embolic stroke.¹ The underlying etiology is diverse, with atherosclerosis being the most common entity.²

AUTHOR CONTRIBUTIONS

Dr. Barlinn obtained the images, prepared the figure, and wrote the case summary. Dr. Kepplinger assisted in preparation of the figure and contributed to drafting and revising the manuscript. Dr. Puetz and Dr. Bodechtel contributed to revising the manuscript.

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