Bilateral cervical internal carotid artery dissections in Eagle syndrome

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Figure Cervical angiography and cranial CT findings

Axial T1 MRI with fat suppression (A, B) shows bilateral cervical internal carotid artery (cICA) dissections (large arrows) adjacent to proximal (A) and distal (B) styloids (small arrows). Axial CT angiography (C, D) shows high-grade stenoses of cICAs (large arrows) and styloids (small arrows) at the same levels. Contrast magnetic resonance angiography shows the extent of the right (E) and left (F) cICA dissections (arrows). Coronal CT angiography (G) demonstrates internal carotid arteries (large arrows) and adjacent styloids (small arrows). 3D reconstruction of skull from CT (H) shows elongated styloids (arrows).

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A 52-year-old man presented with 3 weeks of occipital headache and diplopia on horizontal gaze. Five weeks prior, he maintained the neck in a hyperextended position while painting ceilings. He denied history of prior headaches, cervicofacial pain, odynophagia, or syncope. Neurologic examination revealed partial left sixth nerve palsy. The patient had no symptoms or examination findings typical for connective tissue disease.

Imaging studies demonstrated elongated styloid processes (34 mm) in close proximity to bilateral cervical internal carotid artery (cICA) dissections (figure). MRI did not show evidence of acute or prior strokes.

We attributed the cICA dissections to Eagle syndrome.¹ Eagle syndrome is characterized by pharyngeal or cervicofacial pain attributed to an elongated styloid process or an ossified stylohyoid ligament. Less common manifestations relate to vascular compromise, which may occur because anatomic characteristics of the styloid process (including proximity to cICA and length greater than 31 mm) are potential risk factors for cICA dissection.²

REFERENCES

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