

Bilateral retropharyngeal internal carotid artery ‘kissing carotids’

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ESC Curriculum 2.1 Imaging modalities • 2.2 Echocardiography • 2.4 Cardiac computed tomography

A 77-year-old female presented with right central retinal artery occlusion. Computed tomography angiography (CTA) demonstrated scattered atherosclerotic disease of the common and proximal internal carotid arteries (ICAs) without high-grade stenosis. Carotid duplex confirmed no significant stenosis in ICA (right 50–59%, left 20–39%). The initial CTA was significant for a retropharyngeal

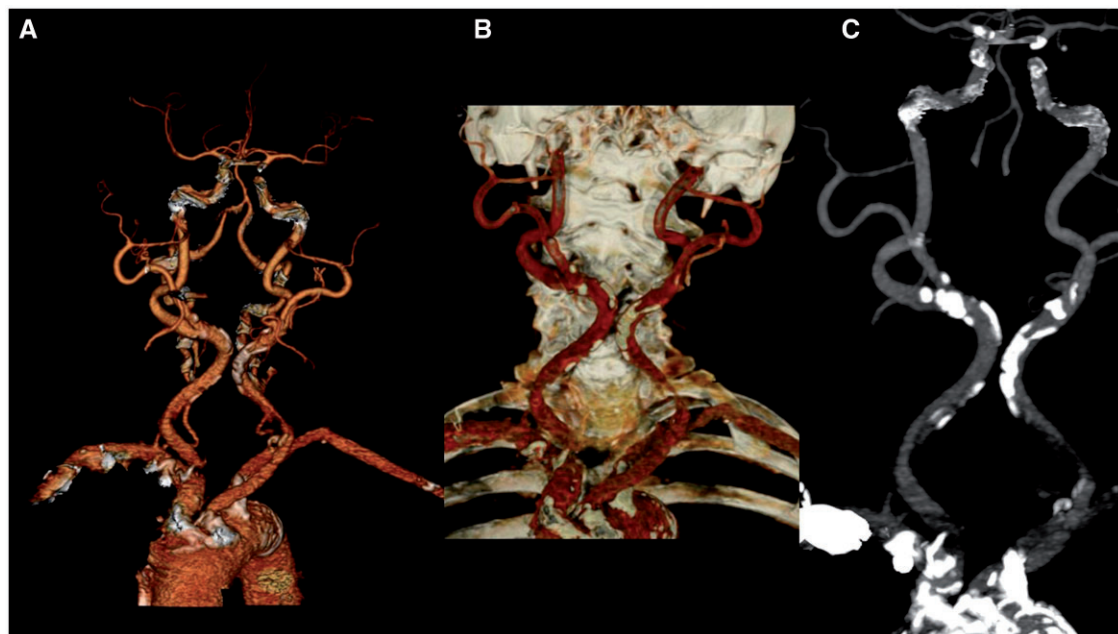


Figure 1 Kissing carotid. (A) Three-dimensional reconstruction of arch of aorta after computed tomography angiography performed using Terarecon®. The image displays the tortuous course of carotid artery meeting at midline. (B) Three-dimensional reconstruction including the bone window depicting the retropharyngeal course of the vessels, the hyoid bone was removed to allow depiction of the anatomic variation. (C) Computed tomography angiography displaying the scattered atherosclerotic disease in the arch of aorta, bilateral carotids, and intracranial internal carotid artery.

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bilateral common carotid artery (CCA) with a minimum distance of 0.5 mm between them. The ICAs were found to be tortuous, medially displaced and almost met in the midline, a variant colloquially referred to as 'kissing carotids' (Figure 1).

Anatomical variation of extracranial ICA is rare, estimated to be found in 5% of the general population.¹ Anatomic variations of ICA could be anatomically classified into straight, tortuous, kinking, and coiling.² The patient had a tortuous bilateral CCA and ICA with retropharyngeal transposition. Majority of patients with kissing carotids are asymptomatic. Symptoms include posterior pharyngeal mass, dysphagia, and glossopharyngeal neuralgia. Association between kissing carotids with cerebrovascular accidents such as stroke and transient ischaemic attacks has been controversial.³ Our team did not attribute the central retinal artery occlusion to the carotid anatomic variant nor found a source for the event after extensive workup. She was assessed by a multidisciplinary team which included Cardiology, Neurology, Vascular Surgery, and Ophthalmology team members. During work up, she had mildly elevated inflammatory markers that were not clinically consistent with superficial temporal arteritis (no temporal pain or headaches). She was put on continuous telemetry during her hospital stay followed by 30-day Holter monitor to assess

for central embolic source. Finally, she was diagnosed with cryptogenic stroke and after stabilization, the patient was discharged on best medical therapy with high-intensity statin (atorvastatin 80 mg), aspirin, and clopidogrel 75 mg. She had an unremarkable follow-up in 3 months.

Consent: The authors confirm that written consent for submission and publication of this case report including images and associated text has been obtained from the patient in line with COPE guidance.

Conflict of interest: None declared.

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