



Interesting Image / İlginç Görüntü

A rare anatomic variation with clinical significance: Occipital and ascending pharyngeal arteries branching from cervical segment of internal carotid artery

Klinik önemi olan nadir bir varyasyon: İnternal karotis arterin servikal segmentinden dallanan oksipital ve çıkan farengeal arterler

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A 60-year-old male was admitted to the neurology department with the chief complaint of dizziness. He suffered from intermittent dizziness for the last four years without any other complaint. We performed computed tomography angiography (CTA) of the head and neck arteries with the suspicion of vertebrobasilar insufficiency, and detected two variant artery branches, originating from the proximal cervical segment of the right internal carotid artery (ICA). The trajectories of these two arteries were compatible with those of the

occipital artery (OA) and ascending pharyngeal artery (APA). The latter is the second and the anterior branch of external carotid artery (ECA), and it contributes to vascularization of the oropharynx, nasopharynx, eustachian tube, middle ear, and skull base. The OA is the fifth and the posterior branch of ECA, supplies blood to the back of the scalp, sternomastoid muscles, and deep muscles of the neck.

Therefore, we confirmed the case as an arterial branching variation (Figure 1a, b). In addition,

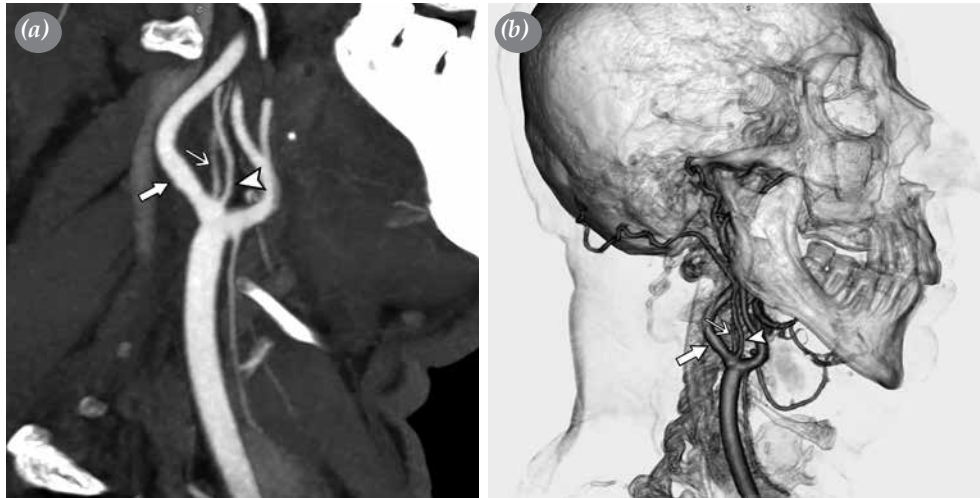


Figure 1. Curved multiplanar reconstruction, maximum intensity projection computed tomography angiography (a) and 3D colored volume rendered computed tomography angiography (b) images shows ascending pharyngeal artery (arrow) and occipital artery (arrowhead) branches of internal carotid artery (thick arrow).

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there was a saccular aneurysm which was measured 2.5×2.5 mm at the cavernosal segment of the left ICA, and an atherosclerotic plaque in the proximal right ICA which caused non-significant narrowing. However, dizziness was not associated with neither of these findings. The variant branches of the cervical segment of the ICA may bare clinical significance during endarterectomy surgery or endovascular treatment, particularly in patients with ICA stenosis.^[1] In case of vertebral artery stenosis, a surgery or endovascular treatment in the region may damage OA which, in turn, causes impaired posterior circulation due to vertebral artery and OA anastomosis.^[2] In parallel, APA, similar to OA, may have anastomotic branches to the anterior and posterior cerebral circulations.^[3]

There are few cases in the literature that report ECA branches originating from the ICA cervical segment. The most common ECA branches originating from the ICA cervical segment are OA and APA, respectively.^[4] To the best of our knowledge, this case report is the first one in the literature to demonstrate CTA findings of unilateral variant APA and OA branches originating from the proximal portion of the ICA cervical segment.

Declaration of conflicting interests

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