AORTIC ARCH VARIANT AND COMMON CAROTID ARTERY AGENESIS

Ana Luísa Costa [1], Isabel Sousa [1], Sónia Palma [1], João Leitão [1]

[1] Service of General Imagiology, Centro Hospitalar Universitário Lisboa Norte

An 83-year-old woman with a history of ileocecal appendix cancer underwent a staging thoracic-abdominal-pelvic computed tomography. Two extremely rare anatomic variants were identified: the right vertebral artery presented an anomalous origin from the aortic arch distal to the left subclavian artery and a retro-esophageal course; right common carotid artery agenesis.

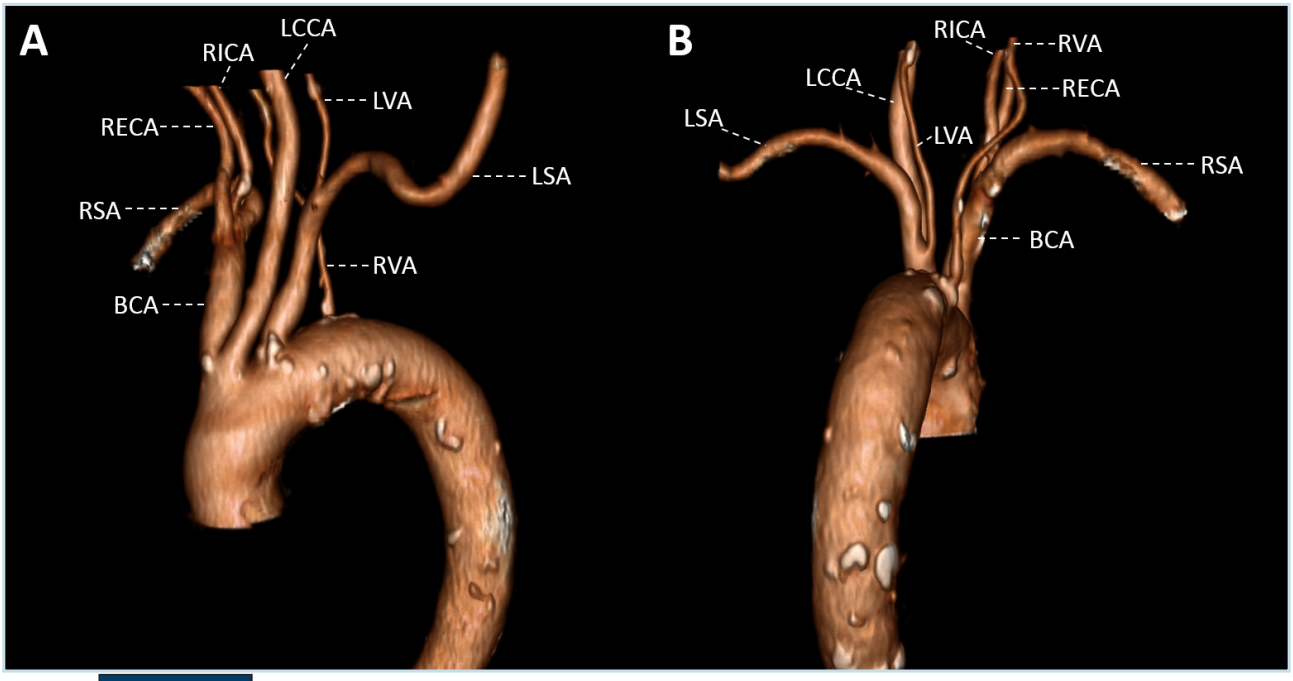


Figure 1

A and B. Computed tomography volume-rendered images show the vessels arising from the aortic arch: common trunk for left common carotid artery (LCCA) and brachiocephalic artery (BCA), left subclavian artery (LSA), and right vertebral artery (RVA). The right external carotid artery (RECA) and the right internal carotid artery (RICA) present independent origins from the BCA; the right subclavian artery (RSA) arises from the BCA after the emergence of the RICA. The left vertebral artery (LVA) arises from the left subclavian artery (LSA). Calcified atheromatous plaques are seen on the aorta and branch vessels. The presence of a common trunk for LCCA and BCA is a common anatomic variant.

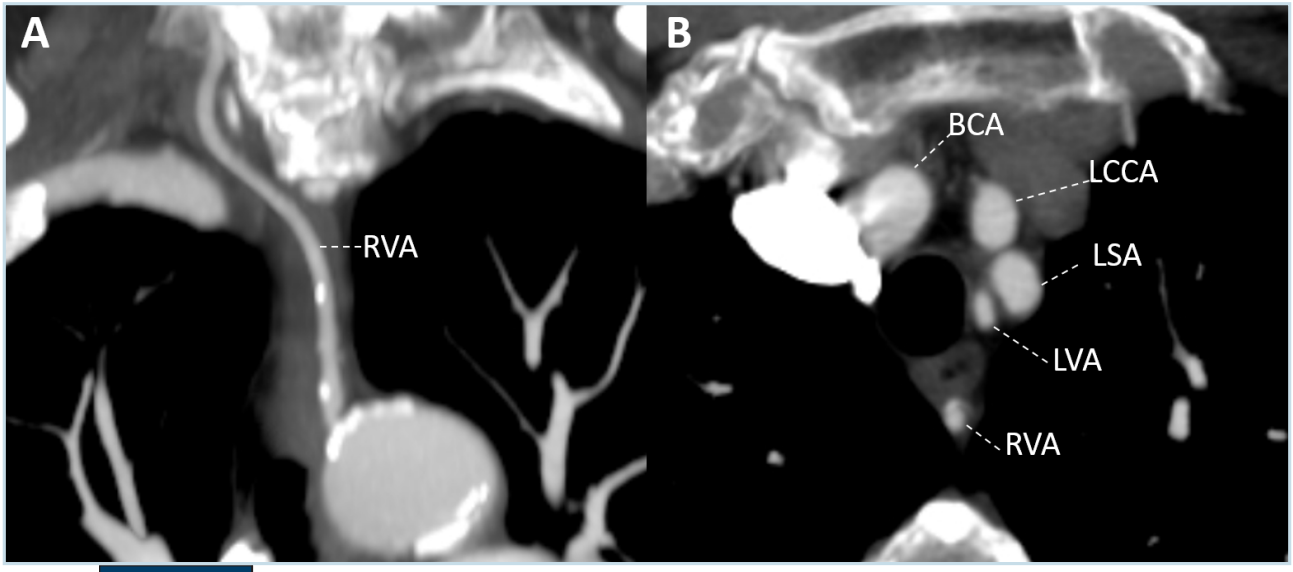


Figure 2

Coronal and axial computed tomography images. A. Coronal computed tomography image shows the origin and proximal course of the right vertebral artery (RVA), from origin to cervical foramina; calcified atheromatous plaques are seen on the aorta and RVA. B. Axial computed tomography image shows 5 epiaortic vessels: brachiocephalic artery (BCA); left common carotid artery (LCCA), left subclavian artery (LSA), left vertebral artery (LVA), and right vertebral artery (RVA), the latter with a retro-esophageal course.