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IMAGES IN PAEDIATRICS

Cervical aortic arch: a rare congenital anomaly

Arco aórtico cervical: una anomalía congénita rara

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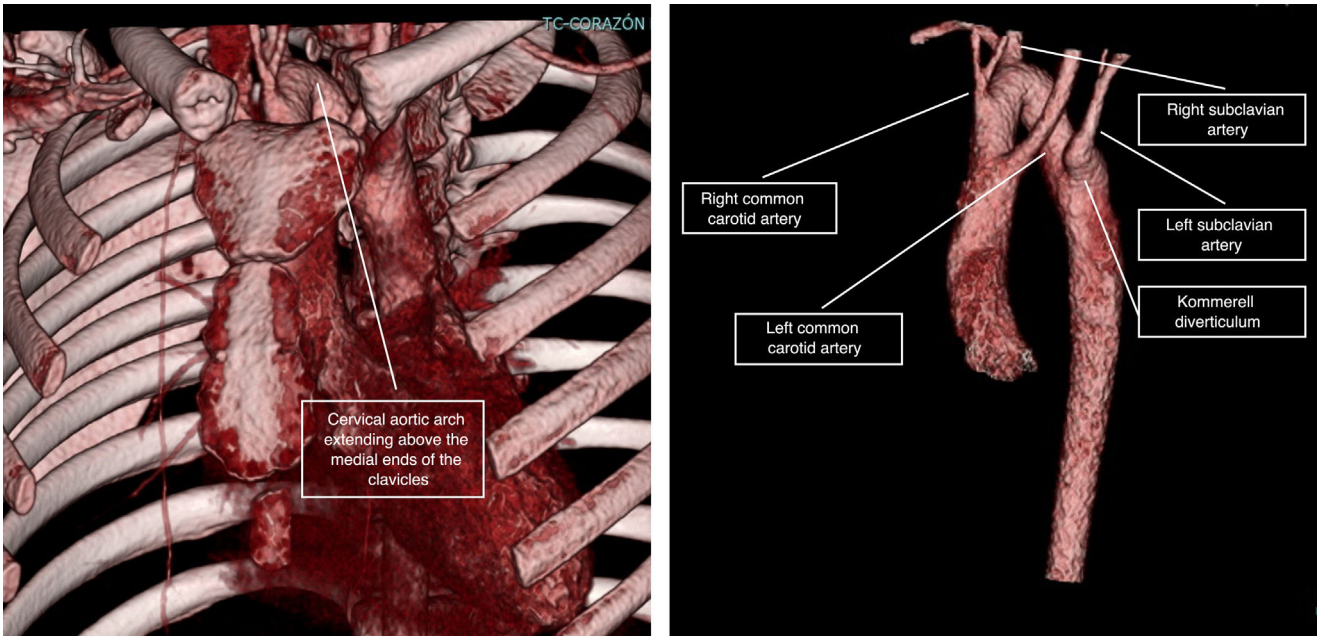

Figure 1 3D reconstruction of the aorta showing the cervical aortic arch and noting its branches.

We present the case of a girl aged 9 years with DiGeorge syndrome referred to our hospital due to suspicion of right aortic arch. In the physical examination, the patient exhibited mild dyspnea, cough and occasional choking, with a palpable cervical pulse. The computed tomography (CT) scan of the heart revealed a complex vascular anomaly: a right-sided aortic arch extending cranially to the level of the right thoracic inlet, forming a cervical aortic arch (CAA) (Figs. 1 and 2, Appendix B video 1). The first branch of the aorta was the left common carotid artery, followed by the right subclavian artery, the left common carotid and the left subclavian artery (LSA). The LSA arose from a Kommerell diverticulum (Fig. 3, Appendix B video 2), which, combined

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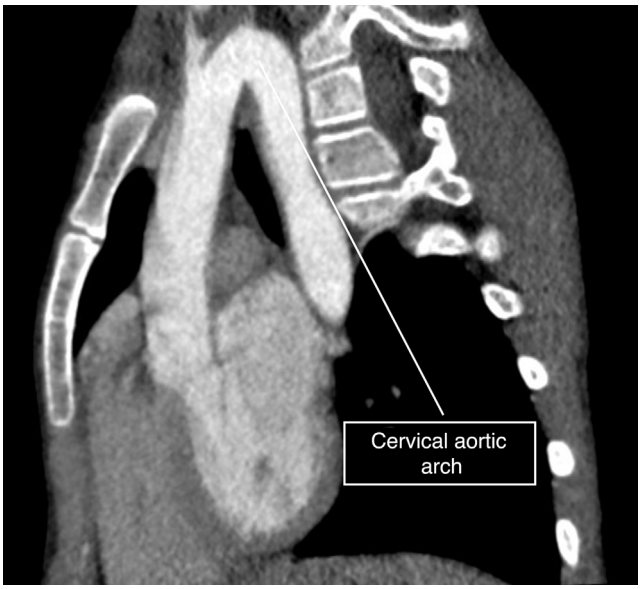

Figure 2 Sagittal CT image. High aortic arch superior to the clavicles.

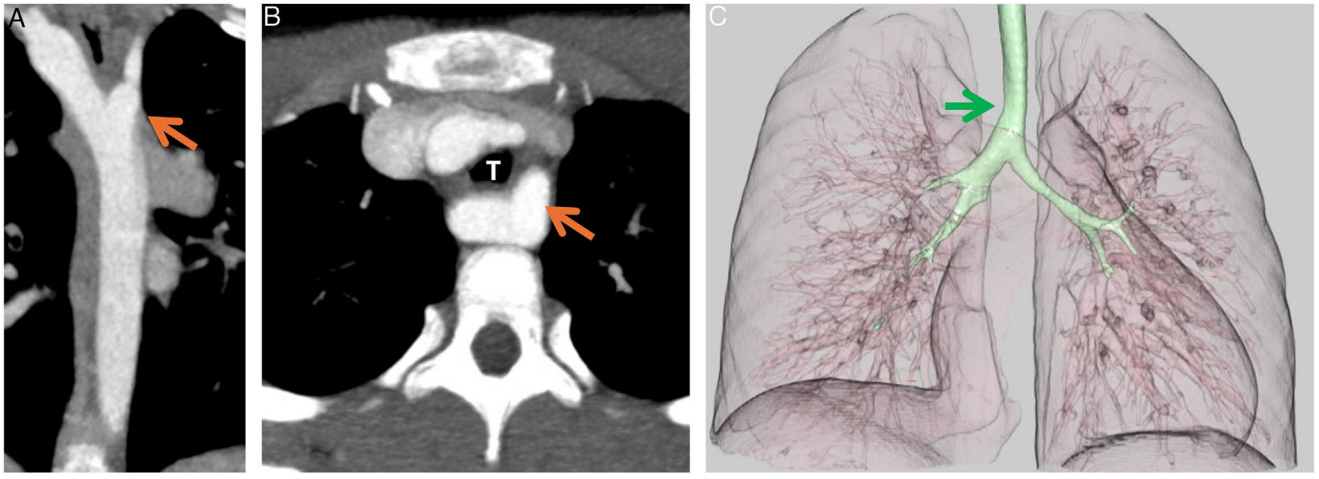

Figure 3 (A) Coronal CT image (B) Axial CT image showing the Kommerell diverticulum (orange arrow) in relation to the trachea (T). (C) 3D reconstruction of the tracheobronchial tree showing the compression of the trachea by the LSA (green arrow).

with the ligamentum arteriosum, formed a complete vascular right that compressed the trachea (Fig. 3). Cervical aortic arch is an infrequent anomaly in the development of the aorta, occurring in fewer than 1 in 10 000 live births, characterized by an elongated aortic arch extending at or above the medial ends of the clavicles.[1] This condition is associated with aneurysms (occurring in up to 20% of cases), coarctation of the aorta, congenital heart defects, Turner syndrome and DiGeorge syndrome.[1,2] Given the presence of a complete vascular ring, surgery was the chosen treatment.[3]

Appendix A. Supplementary data

Supplementary material related to this article can be found, in the online version, at doi:https://doi.org/10.1016/j.anpedi.2024.503697.

Declaration of competing interest

The authors have no conflicts of interest to declare.

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