The Eye Catcher

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The Hidden Arch

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A 29-year-old woman presented with dyspnea that had started 2 months before, when her father died of lung cancer. She did not report any other symptoms. She was an occasional smoker and her past medical history was unremarkable. Cardiopulmonary auscultation was normal. Chest radiography (fig. 1) showed a left paratracheal opacity of unclear etiology and absence of the aortic arch in its usual position. After CT scan, conventional angiography (fig. 2) and magnetic resonance angiography (fig. 3) were performed as they provide a clear advantage over other imaging methods and can visualize pulmonary perfusion [1]. The images revealed a cervical aortic arch extending to the level of the thoracic outlet with no evidence of aortic aneurysm or coarctation, supra-aortic ar-

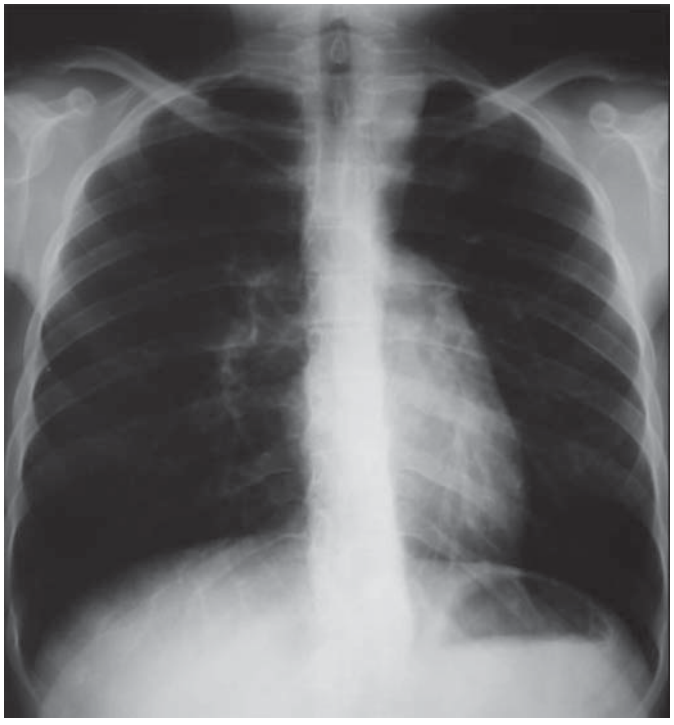

Fig. 1. Chest radiography. Left paratracheal opacity of unclear etiology. The aortic arch is not in its usual position.

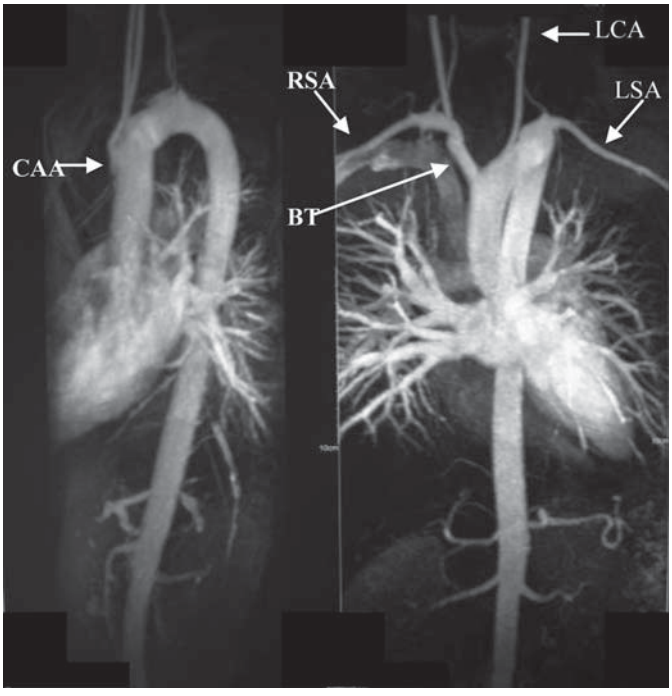

Fig. 2. Conventional angiography. BT = Brachiocephalic trunk; LSA = left subclavian artery; RSA = right subclavian artery; LCA = left carotid artery.

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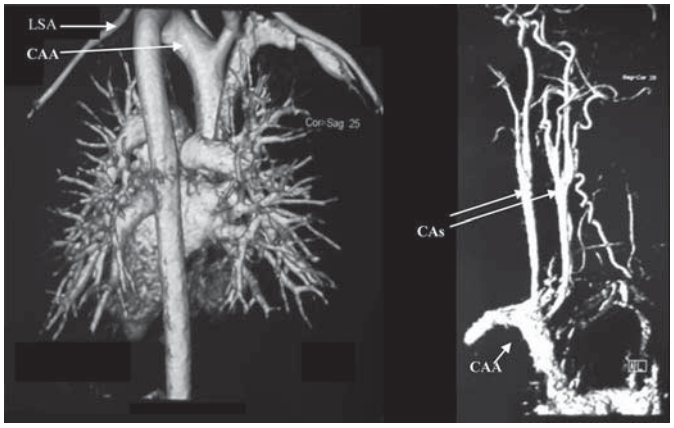

Fig. 3. Magnetic resonance angiography. Cervical aortic arch extending to the level of the thoracic outlet with no evidence of aortic aneurysm or coarctation. Cervical aortic arch and supra-aortic arteries show a normal distribution and there are no abnormalities in either the descending aorta or the ascending aorta. LSA = Left subclavian artery; CAs = carotid arteries.

teries with a normal distribution, and no abnormalities in either the descending aorta or the ascending aorta. Pulmonary arteries and veins were normal. There were no mediastinal abnormalities. A diagnosis was made of left cervical aortic arch (CAA) with no associated anomalies.

CAA is a rare congenital anomaly in which the aortic arch is situated cranially in relation to its usual position, ascending into the neck above the clavicle. Typically, during organogenesis, the aorta develops from the right fourth aortic arch out of a basic pattern of 6 pairs of primitive aortic arches. A cervical arch is formed when atresia of the fourth primitive aortic arch occurs [2]. Abnormalities of arch sidedness and branching or structural anomalies of the aorta such as coartaction, kinking, and aneurysm occur in patients with this anomaly. However, many patients with this anomaly are asymptomatic. In our case, dyspnea disappeared with anxiolytic treatment and 1 year later the patient was still free of symptoms.

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Financial Disclosure and Conflicts of Interest

None declared.

References

1 Kovacs G, Reiter G, Reiter U, et al: The emerging role of magnetic resonance imaging in the diagnosis and management of pulmonary hypertension. Respiration 2008;76:458–470.
2 Poellinger A, Lembcke AE, Elgeti T, Filimonov S, Enzweiler CN: Images in cardiovascular medicine: the cervical aortic arch – a rare vascular anomaly. Circulation 2008;117:2716–2717.