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Clinical Image

A Rare Anomaly of the Aortic Arch: Kommerell Diverticulum Accompanying the Right-sided Aortic Arch and Aberrant Left Subclavian Artery

Una anomalía poco frecuente del arco aórtico: cayado aórtico derecho y arteria subclavia izquierda aberrante con divertículo de kommerell

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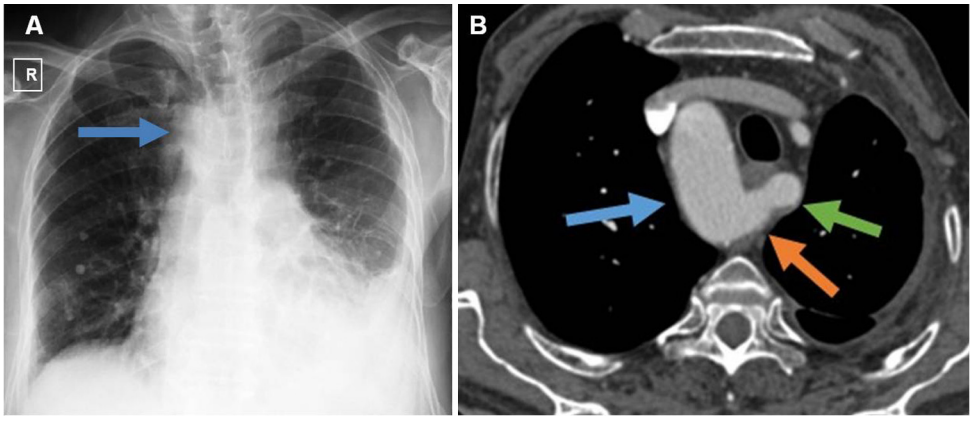

Fig. 1. (A) Chest X-ray shows the right sided aortic knob (blue arrow) and left sided increased opacity due to thickened pleura and pleural effusion. (B) CTA shows the right aortic arch (blue arrow), Kommerell diverticulum (orange arrow) and aberrant left subclavian artery (green arrow).

A 79-year-old male patient was admitted to the pulmonary diseases outpatient clinic with a two-month history of dyspnea on exertion and nonproductive cough. The patient had a history of recurrent left-sided pleural effusion since 2015. Diagnostic thoracentesis revealed chronic empyema. Chest X-ray showed left-sided pleural effusion with thickened pleura and right-sided aortic knob (Fig. 1A). Interestingly, computed tomography angiography (CTA) revealed a rare incidental anomaly of a right-sided aortic arch and aberrant left subclavian artery with Kommerell diverticulum (Fig. 1B). In follow up, the left-sided empyema responded to tube drainage and antibiotherapy.

Anomalies of the aortic arch are a rare condition (0.04–0.4%) detected incidentally and usually asymptomatic but can also be seen with clinical symptoms such as dyspnea, dysphagia and congenital heart diseases.[1] Kommerell's diverticulum is a developmental anomaly that is a remnant of fourth dorsal aortic arch.[1] Even asymptomatic adult cases are at risk of spontaneous aortic rupture due to an aneurysm of the Kommerell diverticulum.[2] Treatment strategy for diverticulum is controversial, it should be based on the patient's anatomy and comorbidities.[1] Aortic arch variations are important condition that should be kept in mind by clinicians, radiologists and surgeons because of serious complications it may cause.

References

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