Recurrence lower respiratory tract infection due to an aberrant right subclavian artery.

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Patient: 44 years, female

Clinical History:

Recurrent episodes of lower respiratory tract infection

Imaging Findings:

A 44 years old woman was presented to the emergency department of our hospital referring symptoms conducting to lower respiratory tract infection. During her recovery a plain chest radiograph was done showing a mass effect in the upper mediastinum and a posterior tracheal imprint at the lateral position. A CT of the thorax was done using a Philips CT Aura, revealing an aberrant right subclavian artery (aRSA) arising from the distal portion of the aortic arch. The vessel is travelling to the right mediastinum behind the trachea and the oesophagus, giving rise to a characteristic smooth, oblique, indentation on the posterior wall of the barium-filled oesophagus.

Discussion:

The aRSA is a common congenital anomaly of the aortic arch, with an incident of 0.5-2% of the healthy population. Usually is asymptomatic and is incidentally discovered during the diagnostic iter of dysphagia “dysphagia lussoria” or a recurrent lower respiratory tract infection. At the plain chest radiograph presents, with a large discrepancy between various studies, characteristic findings (1,4). On the poster anterior radiograph were evaluate: Oblique edge of the aortic arch top, from the left to the right (32%). Vessel through the trachea (44%). Mass effect at the upper mediastinum caused by the dilation of the right subclavian artery (20%). On the lateral radiographs we observe: Posterior tracheal imprint (95%). Retro tracheal opacity expanding from the trachea to the vertebrae (58%). Obscuration of the upper edge of the aortic arch (37%). The frequency of these abnormal findings is higher on the lateral radiographs than on the poster anterior view (1). This radiological picture if accompanied by stridor, infection, apnea and cyanosis are strongly suggesting an aberrant subclavian artery, specially in children. Usually the aRSA doesn’t present a dilation of the orifice (Kommerel diverticulum), neither a midline descending aorta. Contrary, the left aberrant subclavian artery (2,3) is frequently characterized by Kommerell diverticulum, midline descending aorta and right aortic arch. Nevertheless, a ligamentum arteriosum completes the vascular ring in most of these patients. In conclusion, airway compression, and its clinical symptoms, may occur in both right and left aberrant subclavian arteries, even with different percentage of appearance.

Differential Diagnosis List: Aberrant right subclavian artery.
**Final Diagnosis:** Aberrant right subclavian artery.

**References:**


Figure 1

Description: Origin: