



Clinical Image

Aberrant right subclavian artery: a silent and illusive anomaly

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Arteria subclavia derecha aberrante: una anomalía silenciosa e ilusoria

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Aberrant right subclavian artery, also known as arteria lusoria, is one of the most common aortic arch anomalies. Even though it is considered to be one of the commonest anatomical variations its estimated incidence is 0.5-1.8% [1]. In 1761, David Byaford, accidentally discovered this developmental anomaly in a post mortem study of a 62 years old patient who suffered prolonged dysphagia of unknown cause, therefore coining the term "*dysphagia lusoria*". The dysphagia in this case originates from extrinsic compression

of the esophagus from from aberrant right subclavian artery. In 1787, a paper describing the case was read on his behalf before the Medical Society of London raising awareness of this anomaly [2].

This anomaly (a. lusoria) accounts for 17% of all developmental variations of the aortic arch and its branches. A. lusoria in most cases is combined with other anomalies in the development of the cardiovascular system such as bicarotid trunk, right-sided aortic arch, coarctation of the

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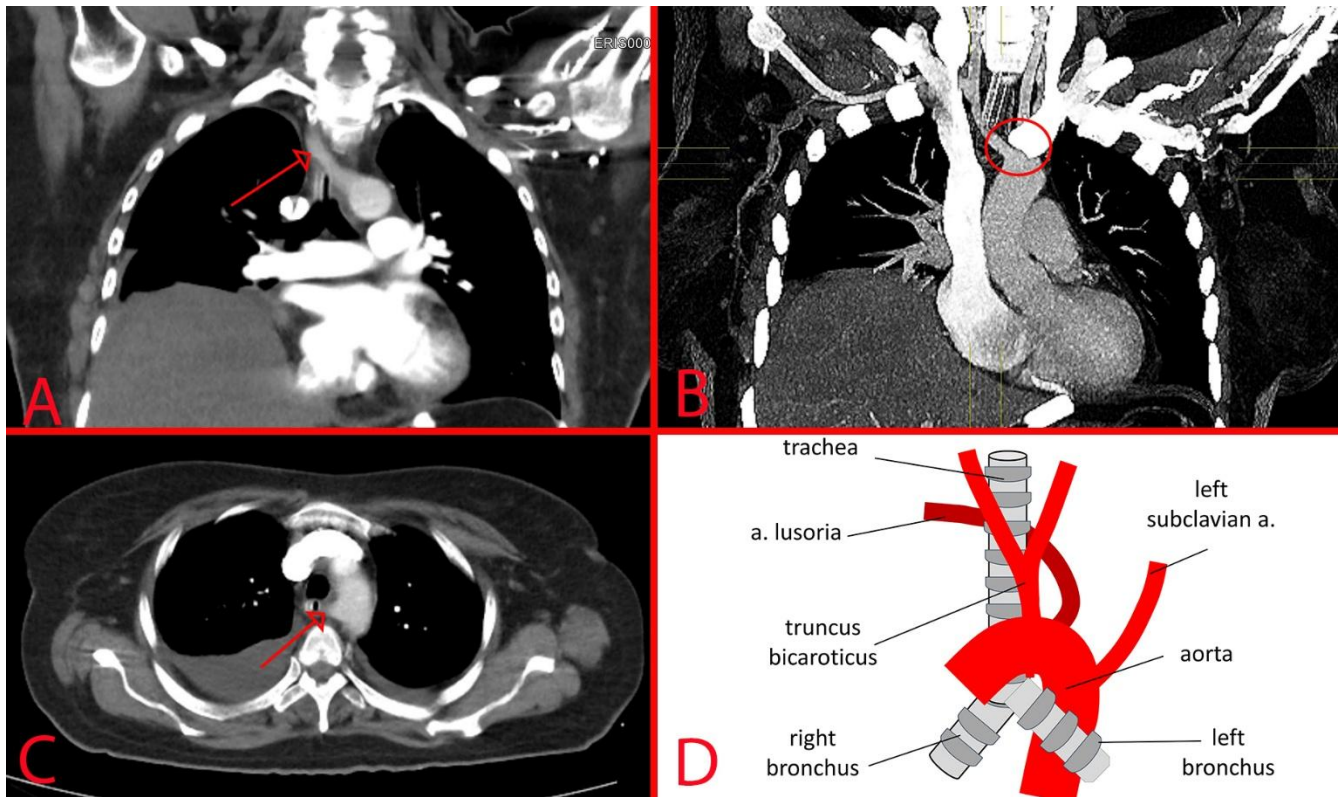


Figure 1: A: Anatomical anomalies of the aortic arch. A: Chest CT (frontal section, arrow indicates a. lusoria); B: Chest CT (frontal section, circle indicates bicarotid artery), C: Chest CT (axial section, arrow indicates a. lusoria), D: schematic representation of the vascular variations.

aorta, patent ductus arteriosus, tetralogy of Fallot, transposition of the great arteries, interventricular and interatrial septal defects, aneurysms, congenital mitral stenosis, pulmonary valve stenosis, arterioesophageal fistula and several genetic syndromes [3, 4].

The patient was a 54-year-old female who undergone pancreaticoduodenal resection for pancreatic head cancer. Two days after surgery she developed an episode of dyspnea with desaturation to 78% on inspiration of atmospheric oxygen. Her laboratory parameters were unremarkable except for D-dimer which was 7056 ng/ml. Her chest CT with intravenous contrast enhancement revealed incidental arteria lusoria, bicarotid trunk and pulmonary artery thrombosis of the inferior segmental artery on the right. The patient did not report any signs of dysphagia, however, the artery passed between the trachea and the esophagus. The patient was managed conservatively with anticoagulants and discharged 9 days after surgery. Patients with arteria lusoria can be asymptomatic, however, physicians should be aware of this anomaly during invasive procedures such as cardiac endovascular procedures, surgery on the heart, lungs, trachea, bronchi, esophagus and thyroid gland to avoid iatrogenic injury. Anatomic variations are crucial for surgeons and interventional

radiologists; in relation to preoperative CT, MRI, and intraoperative angiography [5].

1. CONFLICT OF INTERESTS

The authors have no conflict of interest to declare. The authors declared that this study has received no financial support.

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