

CASE IMAGE

Double aortic arch presenting with respiratory disorders

Solunumsal bozukluk ile başvuran yetişkin hastada çift aortik ark

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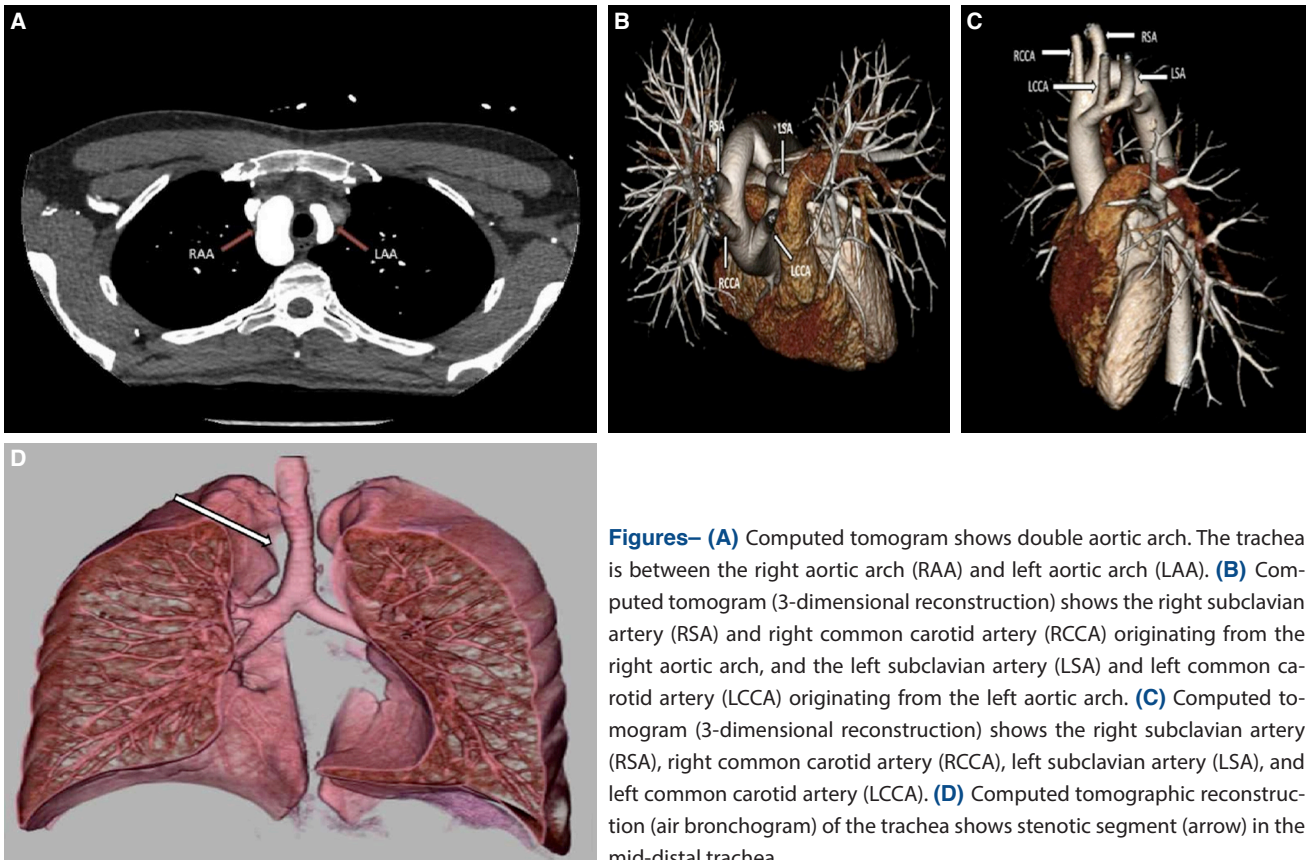
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A 30-year-old man was evaluated in the Division of Pulmonary and Respiratory Diseases for an intermittent cough. His physical examination was inconclusive with bilateral normal and equal peripheral pulses. The chest X-ray was normal. A complete thoracic computerized

tomography scan was performed. In the anatomical axial planes, an image compatible with a double aortic arch (Figure A) was observed, and confirmed subsequently by aortography with contrast and upper, medium, and posterior three-dimensional (3D) reconstruction. The 3D images (Figure B, C) revealed

a complete double aortic arch with right subclavian and carotid arteries originating from the right arch, and the left subclavian and carotid arteries originating from the left arch. A probable tracheal obstruction was evaluated with an air bronchogram, and minimal obstruction was detected (Figure D). Double aortic arch represents about 1% to 2% of all congenital cardiac and aortic disorders. It is a complete vascular ring characterized by a connection between the left and right aortic arches encircling the trachea and the esophagus. This pathology is usually diagnosed in childhood, and prognosis is good with surgical therapy. There have been few reports on adult patients, for whom the most common presenting complaints are asthma-like symptoms and dysphagia. In this patient, no significant tracheal or esophageal obstruction was detected; therefore, clinical follow-up with medical therapy was recommended.



Figures– (A) Computed tomogram shows double aortic arch. The trachea is between the right aortic arch (RAA) and left aortic arch (LAA). (B) Computed tomogram (3-dimensional reconstruction) shows the right subclavian artery (RSA) and right common carotid artery (RCCA) originating from the right aortic arch, and the left subclavian artery (LSA) and left common carotid artery (LCCA) originating from the left aortic arch. (C) Computed tomogram (3-dimensional reconstruction) shows the right subclavian artery (RSA), right common carotid artery (RCCA), left subclavian artery (LSA), and left common carotid artery (LCCA). (D) Computed tomographic reconstruction (air bronchogram) of the trachea shows stenotic segment (arrow) in the mid-distal trachea.