



Takayasu's arteritis with pulmonary artery involvement

Marina de Moraes Carvalho da Silva¹, Rosana Souza Rodrigues^{1,2},
Edson Marchiori¹

A 26-year-old man was hospitalized with a history of dyspnea and chest pain. Physical examination revealed systemic arterial hypertension and reduced arterial pulses in the upper limbs. Pulmonary computed tomography (CT) angiography showed dilation of the right pulmonary artery and the lower lobe branches (Figure 1A), stenosis of the left pulmonary artery tree (Fig. 1B), aneurismatic dilation of the pulmonary artery trunk (Fig. 1C and 1D), and diffuse and irregular aneurysm of the descending thoracic aorta (Fig. 1E). Carotid artery magnetic resonance angiography revealed left carotid artery narrowing with focal stenosis points (Fig. 1F). These angiographic findings and the clinical history led to the diagnosis of Takayasu's arteritis (TA).

TA is a chronic autoimmune disease characterized by inflammation of the aorta and its branches. This process leads to arterial wall thickening, with consequent stenosis and occlusion, along with lumen dilation, aneurysms, and dissection. The clinical presentation of the disease is related to tissue ischemia and organ failure. The detection of vascular alterations by angiography is mandatory for TA diagnosis. Other criteria include pulse deficit or claudication, blood pressure discrepancy, bruits, hypertension, and acute phase reactants. Pulmonary artery involvement is a rare complication that is usually seen in later stages of TA and is associated with pulmonary hypertension, leading to right ventricular failure and worsening of the patient's prognosis.^(1,2)

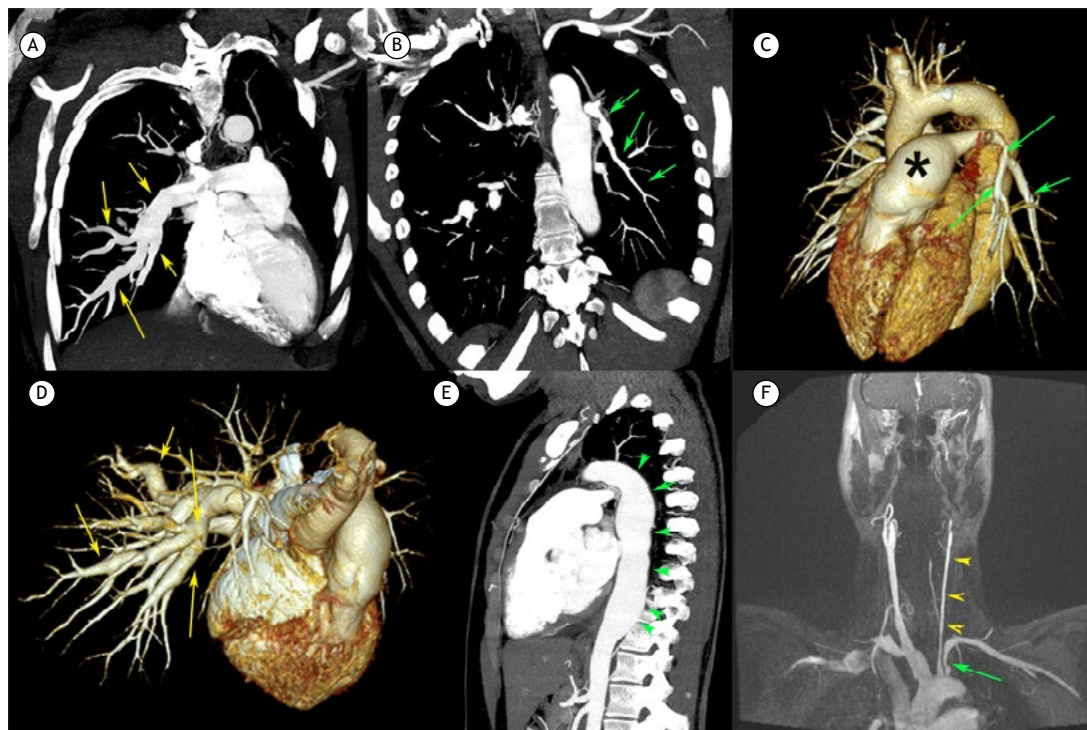


Figure 1. Pulmonary CT angiography images with maximum intensity projection (MIP; A and B), three-dimensional volume-rendered (C and D), and sagittal MIP (E) reconstruction showing dilation of the pulmonary artery trunk (asterisk in C) and the right pulmonary artery and its lower lobe branches (yellow arrows in A and D), substantial stenosis of the left pulmonary artery tree (green arrows in B and C), and diffuse and irregular aneurysm of the descending thoracic aorta (green arrowheads in E). Coronal MIP reconstruction of a post-contrast T1-weighted fat-saturated carotid magnetic resonance angiography sequence (F) showing diffuse narrowing of the left carotid artery (yellow arrowheads). Note also stenosis in the emergence of the left subclavian artery (green arrow).

REFERENCES

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1. Universidade Federal do Rio de Janeiro, Rio de Janeiro (RJ), Brasil.
2. Instituto D'Or de Pesquisa e Ensino (IDOR), Rio de Janeiro (RJ), Brasil.