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Clinical Image

Giant pulmonary artery aneurysm in pulmonary arterial hypertension☆

Aneurisma gigante de la arteria pulmonar en hipertensión arterial pulmonar

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Our patient was a 68-year-old woman, diagnosed with idiopathic pulmonary hypertension (PH) 15 years previously, treated with triple vasodilator therapy and considered high risk, given the following hemodynamic parameters: mean pulmonary artery pressure 52 mmHg, cardiac index 2.15 l/min/m^2, right atrial pressure 11 mmHg, pulmonary vascular resistance 11 Wood units. Chest X-ray (Fig. 1A) revealed a prominent pulmonary artery and echocardiogram (Figs. 1B and C) showed a dilated right ventricle with mild dysfunction and dilated pulmonary artery. A CT angiogram of the pulmonary arteries performed during follow-up showed aneurysmal dilatation of the pulmonary trunk and main branches with a maximum diameter of 103 mm (Fig. 1D), producing partial compression of the pulmonary bronchial tree (arrow Fig. 1D) that caused repeated respiratory infections. She presented exertional angina, and coronary angiography showed tapering of the left coronary artery (LCA) due to extrinsic compression (arrow Fig. 1F), resolved with implantation of a drug-eluting stent (Fig. 1 G; arrow in Fig. 1E).

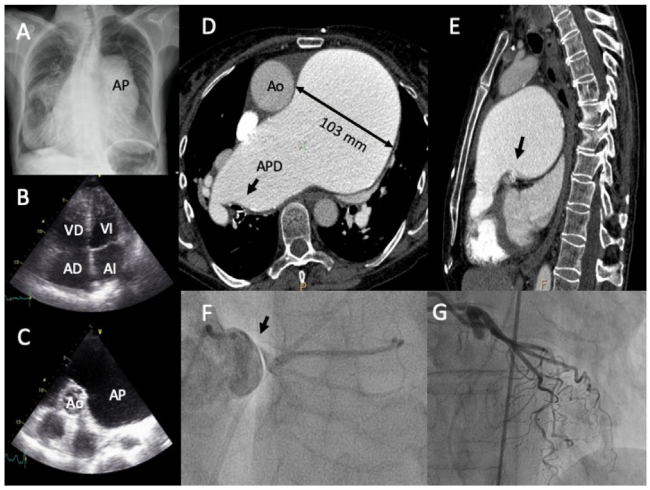

Figure 1. A: chest X-ray, posteroanterior projection. B: transthoracic echocardiography, apical 4 chamber view. C: transthoracic echocardiography, short axis parasternal plane at the level of the large vessels. D–E: chest computed tomography with contrast medium, mediastinal window. F–G: coronary angiography, anteroposterior projection.
AP: pulmonary artery; VD: right ventricle; VI: left ventricle; AD: right atrium; AI: left atrium; Ao: Aorta; APD: right pulmonary artery.

Pulmonary artery aneurysms are a frequent complication in PH, with a prevalence of up to 40%.[1] They are associated with the severity of the hemodynamic situation and time of progression. Potential complications include extrinsic compression of the LCA,[2] thrombosis, and wall dissection.[3]

Our clinical case is one of the largest pulmonary aneurysms published in the literature and illustrates the main associated complications.

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