

Pulmonary Artery Aneurysm in an Adult Patient

Aneurisma de la arteria pulmonar en un paciente adulto

AGUSTINA GINESI, IGNACIO NOGUES, ALEJANDRO GARCÍA AGUIRRE

Pulmonary artery aneurysm (PAA) is an uncommon but potentially lethal clinical entity, with low incidence and prevalence and difficult diagnosis. Pulmonary artery aneurysm can be congenital or acquired. Congenital PAA can develop secondary to cardiac malformations causing pulmonary arterial hypertension, such as persistent ductus arteriosus, and ventricular or atrial septal defects, while acquired PAA can be secondary to trauma, infection, and connective tissue disorders, among other causes. (1) Patients with this condition can be asymptomatic or present with dyspnea, chest pain, and even hemoptysis, a sign of aneurysm rupture. This condition may progress to death unless early surgical intervention is performed. Diagnosis can be achieved with Doppler echocardiography, while high-resolution computed tomography scan and magnetic resonance angiography are the gold standard for diagnosis. Optimal treatment of PAA remains uncertain. Wall stress is the most important determinant of progression to rupture; therefore, conservative treatment is suggested for asymptomatic patients with no pulmonary hypertension. Surgical therapy is indicated in case of risk of rupture, such as PAA >5.5 cm, increase in aneurysm diameter >0.5 cm in the last 6 months, thrombus formation in the aneurysmal sac, emergence of clinical symptoms, and signs of rupture or dissection. (2) These images correspond to a magnetic resonance angiography with gadolinium of a 70-year-old male patient with history of Amplatzer atrial septal defect closure in 2008, after ischemic stroke and congenital pulmonary valve stenosis treated with balloon angioplasty in the same year. Figures show a great aneurysmal dilatation of the main pulmonary artery and of the right and left pulmonary arteries of 66 mm and 26 mm, respectively.

Conflicts of interest

None declared (See authors' conflicts of interest forms on the website/ Supplementary Material).

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Fig. 1. Magnetic resonance angiography. Axial plane at the level of the pulmonary artery bifurcation. **A:** Without gadolinium **B:** With gadolinium.

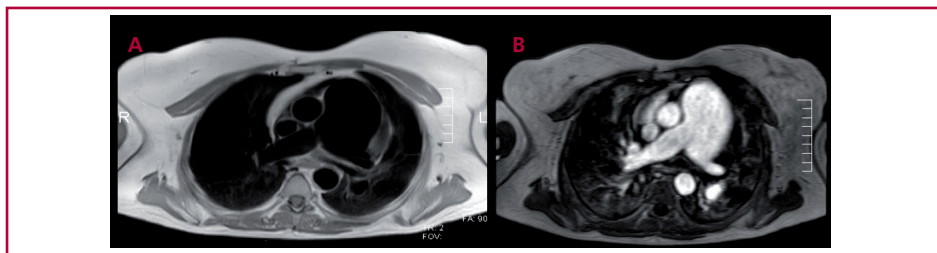
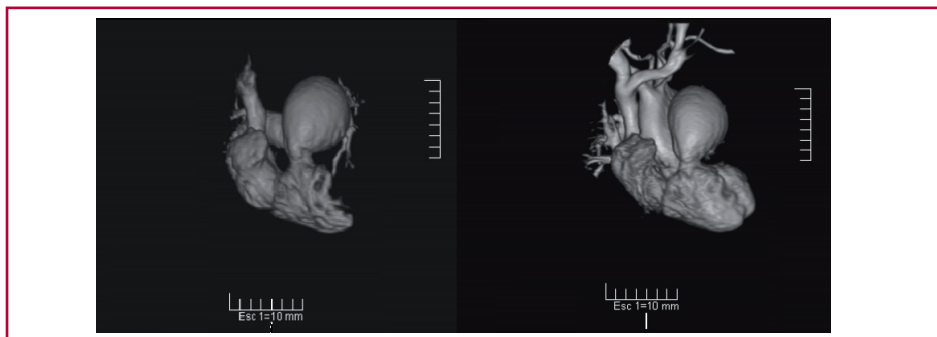


Fig. 2. Magnetic resonance angiography with 3D reconstruction at the pulmonary artery level.



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Herzzentrum - Hospital Alemán, Buenos Aires, Argentina