

Giant left atrial aneurysm in a three year old

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Background:

The PA to the LA fistula is a rare cause of central cyanosis. Embryologically, incomplete degeneration of septum between the arterial and venous plexus of the pulmonary vascular bed or defective capillary loop leads to formation of thin-walled sacs resulting in formation of pulmonary arteriovenous fistula. The more restrictive the fistula is, the more subtle is the extent of cyanosis and the less evident is the clinical presentation

Case Description:

We describe the case of three years-old patient, who presented with unresolving pneumonia, that necessitated CT imaging. CT imaging revealed a mass in the posterior mediastinum that was communicating with the left atrium. Originally it was thought that this is an aneurysmal dilation of one of the pulmonary veins, that could have resulted from mitral regurge. Echocardiography showed an aneurysmal dilation of the left atrium, with an abnormal retrograde flow across the roof of the left atrium, pulmonary hypertension and mitral regurge were excluded. 3D CT angiographic reconstruction revealed the presence of a fistulous communication between the RPA and left atrium, this explains the low normal oxygen saturations of this patient due to mixing (90-92%) and the high hemoglobin concentration (160) due to chronic subclinical hypoxia.

Conclusion and learning points:

Aneurysmal dilation of left atrium is commonly encountered with severe mitral regurge, rare causes such as PA to LA fistulae should be thought of especially if clinical or subclinical hypoxia or polycythemia is present.