Right coronary sinus to pulmonary artery fistula, rare cause of dyspnea: a case report

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Introduction: Aorto-pulmonary fistula is a very rare type of anomalous vascular communication and mainly associated with a risk of heart failure (volume overload, pulmonary hypertension), rupture or dissection, myocardial ischemia, arterial aneurysm or endocarditis.[1-4] The presence of symptoms and evidence of a significant hemodynamic left-right shunt necessitated intervention.

Case report: 73-year-old woman presented to hospital on routine cardiology control exam with the symptom of the progressive dyspnea on exertion over the last 5 years. The patient followed up by the cardiologist a couple of years because of history of dyspnea and fatigue. Except for hypertension, there was no significant other past medical history and all diagnostic tests which were performed to detect etiology of dyspnea was non-diagnostic. 12-led electrocardiogram showed normal sinus rhythm, rate of 72 beats per minute, normal heart axis, and diffuse non-specific T-wave abnormalities. Transthoracic echocardiography demonstrated mild pulmonary regurgitation and pathological, shunt flow, which drained into the left lateral aspect of the main pulmonary trunk. The main differential diagnosis was fistula, patent arterial duct, although other congenital arteriovenous shunts need to be excluded. A high velocity flow shunt was evident in diastole. CT coronary angiography demonstrated a communication between the aortic root and pulmonary artery. It was a well-defined fistula between the right coronary sinus and main pulmonary artery, 1 – 2 cm above the pulmonary valve. The fistula appeared separate to the right coronary ostium and exam ruled out communication with the coronary circulation.

Conclusion: Aorto-pulmonary fistula is very rare and easily misdiagnosed. Pulmonary artery fistulas should be part of the differential diagnosis in a patient symptomatic for dyspnea. Patient with aorto-pulmonary fistula has been referred for surgical or percutaneous correction.

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LITERATURE

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