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IMAGES IN CARDIOLOGY

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Left coronal ostium to right atrium fistula causing right ventricular failure and pulmonary hypertension

A 68 year old woman was hospitalised because of dyspnoea and chest tightness. She had chronic atrial fibrillation. Left cardiac catheterisation revealed coronary arteries without significant stenoses and no impaired left ventricular function (ejection fraction 66%). A fistula from the left coronal ostium to the right atrium was visualised during coronary and aorta arteriography. Right cardiac catheterisation showed mild tricuspid valve insufficiency, pulmonary hypertension of 54/22 mm Hg (mean 35 mm Hg), right ventricular pressure of 54/8 mm Hg, mean pulmonary capillary wedge pressure of 10 mm Hg, and 80.0% saturation of the superior vena cava. Echocardiography showed an increased left atrial diameter (48 mm) and normal dimensions and thickness of the left ventricle (end systolic diameter of 28 mm and end diastolic diameter of 53 mm). Cardiac magnetic resonance imaging in longitudinal projection showed an abnormal structure passing across the aortic wall and into the right atrium (length 77.4 mm, width 13.1 mm—see panel). In this case, the Qp/Qs ratio was 2.1 and we performed fistula closure surgically, using the heart-lung machine.

M Yoda
K Minami
R Koerfer
masatakayoda@aol.com