Left main coronary artery compression by a giant pulmonary artery aneurysm associated with large atrial septal defect and severe pulmonary hypertension

A 27-year-old woman having exercise intolerance, shortness of breath and substernal chest pain was admitted to our institution. On admission, physical examination revealed, a blood pressure of 110/60 mmHg, 2/6 mid-systolic murmur at the apex, 3/6 systolic murmur in the tricuspid area and fixed splitting of the second heard sound during all respiration phases. Chest X-ray showed cardiomegaly and a prominent bilateral pulmonary artery enlargement (Fig.1). Transthoracic echocardiography was performed for the first time in her life, and it revealed an 1.8 cm in size prominent secundum type atrial septal defect with severe pulmonary hypertension and dilated right cardiac chambers (Fig. 2, Video 1. See corresponding video/movie images at www.anakarder.com). Moreover a giant pulmonary artery aneurysm (5.3 cm) was seen on the parasternal short-axis view. She
was referred for invasive angiography, which revealed a 95% occlusion of left main coronary artery (Fig. 3, Video 2. See corresponding video/movie images at www.anakarder.com). At cardiac catheterization, a left-to-right shunt of 2.5:1 (Qp:Qs) and severe pulmonary hypertension (75/35/55) were found. Computed tomography showed important pulmonary aneurismal dilatation of main pulmonary artery with left main coronary artery compression (Fig. 4). She was checked for the Behçet’s disease but diagnose for Behçet’s disease was not established. No other connective tissue disorders and infections such as syphilis, tuberculosis were found.

Diffuse coronary spasm mimicking acute thrombosis after stent implantation

A 75-year-old man presented to outpatient clinic was complaining of chest pain induced by mild exercise but sometimes occurring at rest. He had hypertension, cigarette smoker and a history of coronary artery bypass graft surgery. His physical examination showed no abnormalities. Electrocardiography showed ST depression in inferior leads. He was referred for coronary angiography (CA), which revealed a 100% stenosis after first diagonal (DI) branch of left anterior descending artery (LAD) and mid circumflex, a 99% stenosis at the level of the conus branch of right coronary artery (RCA) (Fig. 1a and Video 1. See corresponding video/movie images at www.anakarder.com). There were no stenoses in any of saphenous vein grafts (SVG)- LAD, SVG-DII and SVG-obtus marginalis. The RCA lesion did not significantly improve with intracoronary nitroglycerin and was treated by implantation of a 3.5×13 mm bare-metal stent. The result was excellent, with no signs of residual stenosis and a normal flow (Fig. 1b and Video 2. See corresponding video/movie images at www.anakarder.com). After the procedure patient was taken to coronary intensive care unit. One hour after the procedure the patient had developed severe chest pain. ST segment elevation was detected in inferior leads (Fig. 2). Then the patient was taken to catheterization laboratory with a preliminary diagnosis of acute stent thrombosis. On the CA, diffuse vasospasm at the end of the stent extending to distal RCA was detected (Fig. 3 and Video 3. See corresponding video/movie images at www.anakarder.com). After intermittent administration of intracoronary nitroglycerin, the spasm resolved (Fig. 4 and Video 4. See corresponding video/movie images at www.anakarder.com).