A 50-year-old male patient, without previous history, presented with prolonged precordial pain following moderate exercise. He was transferred to a local hospital, where acute coronary syndrome (ACS) was diagnosed and was treated with conventional (aspirin, β-blockers, nitrates, heparin) treatment. His recovery was uncomplicated and he left the intensive care unit 48 hours later. He was discharged from the hospital 7 days later and the following treatment was prescribed: β-blocker, angiotensin converting enzyme inhibitor, statin, and aspirin. The patient was a smoker (60 packs per year), presented dyslipidemia and had no positive family history of coronary artery disease. After his release from the hospital, he was admitted to our hospital for cardiac catheterization without any symptoms. He was hospitalized as planned, two weeks following the ACS and underwent coronary angiography.

Coronary angiography showed normal left main coronary artery, left anterior descending artery and left circumflex artery. The right coronary artery (RCA) was totally occluded, with a mass at proximal segment (Fig. 1, 2. Video 1, 2. See corresponding video/movie images at www.anakarder.com). Trans thoracic and transesophageal echocardiography showed no abnormalities of cardiac valves or contractile function and the ascending aorta as well.

The patient was then transferred to radiodiagnostic unit to investigate this mass with multislice computed tomography (MSCT) (Fig. 3. Video 3. See corresponding video/movie images at www.anakarder.com) and cardiac magnetic resonance imaging (MRI) (Fig. 4. Video 4. See corresponding video/movie images at www.anakarder.com). Blood examination and chest X-ray showed no significant pathological findings. For certain diagnosis and treatment, surgical resection of the mass was our preferred treatment modality, with the agreement of cardiovascular surgery department. As the patient refused the surgical intervention; a course of conservative treatment was decided upon and it was recommended that the patient follows a pharmaceutical treatment. Follow-up MSCT was planned at the end of six months and the patient was discharged.

Coronary artery aneurysm is an abnormal dilatation of focal or diffuse segments of coronary artery. The incidence of coronary aneurysm among coronary artery disease is about 1.5% to 5% (1-3). It may be congenital, or secondary to other diseases, such as atherosclerosis, trauma, previous coronary intervention, mycotic emboli, Kawasaki’s disease or systemic lupus erythematosus (4). In this case, our patient presented with ACS. Coronary angiography displayed total occlusion of the RCA and a giant aneurysm. Abnormal flow pattern in the aneurysm may lead to thrombus formation with
subsequent vessel occlusion, distal thromboembolization or even myocardial infarction (4). The aneurysm may also present as an intracardiac mass once it is thrombosed (5). New imaging techniques as MSCT and MRI are going to be well-established and widely used methods to evaluate such abnormalities nowadays.

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References


Multiple and bilateral coronary fistulas resulting in myocardial ischemia due to significant stealing of coronary artery blood flow

Koroner arterden önemli miktarda kan çalınması sonucu miyokard iskemisi neden olan iki tarafı ve çoku koroner fistül

A coronary artery fistula is a direct communication between a coronary artery and one of the cardiac chambers or vessels around the heart. The incidence of congenital coronary artery fistulas was reported to be 0.08% in Turkish adults who underwent diagnostic cardiac angiography (1). If myocardial ischemia is documented in case of coronary fistulas, one of the following therapeutic options should be chosen: surgical procedure involving closure of the openings of the fistulas from inside the pulmonary trunk, covered stent implantation and percutaneous transluminal embolisation involving closure of the fistulas from the proximal portion or mid-portion (2-4).

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