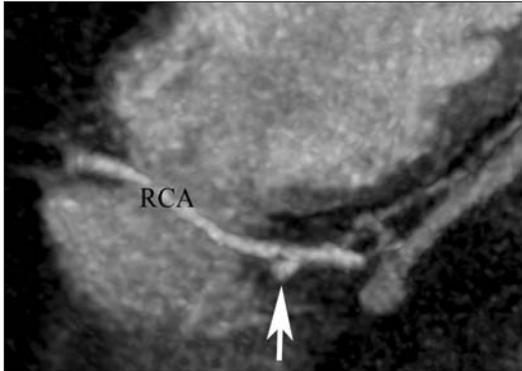


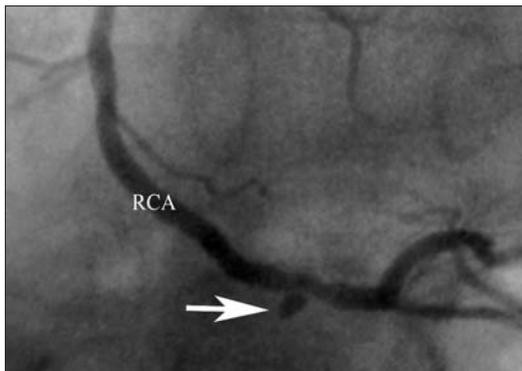
## Evaluation of small coronary artery aneurysm by 64-slice multi-detector CT coronary angiography and virtual angioscopy

### *Küçük koroner arter anevrizmasının 64 dedektörlü BT ile yapılan koroner anjiyografi ve sanal anjiyoskopi ile değerlendirilmesi*

A 77-year-old man presented to the cardiology clinic with the complaint of effort-induced chest pain without known ischemic heart disease. Physical examination was normal. Electrocardiographic recordings revealed non-specific ST-T changes in lateral precordial leads. There was no elevation of cardiac enzymes and no laboratory evidence of connective tissue disease or vasculitis. Multi-detector CT (MDCT) coronary angiography was performed with 64-slice CT scanner (Somatom Sensation 64, Siemens Medical Solutions, Forchheim, Germany). The scan was performed during 10-second breath hold, with a 0.6 mm collimation, 0.6 mm slice thickness reconstruction. During the image acquisition, 80 ml of non-ionic iodinated contrast agent (380 mg of iodine per milliliter) was injected intravenously at a rate 4 ml/sec followed by 40 ml of saline at 5 ml/sec. Imaging was obtained by retrospective ECG-gating. Curved multiplanar reformatted images showed small right coronary artery (RCA) aneurysm (Fig. 1). Conventional coronary angiography also showed a small aneurysm of the RCA (Fig. 2). Three-dimensional virtual angioscopic images revealed saccular aneurysmal neck and patent artery lumen (Fig. 3).

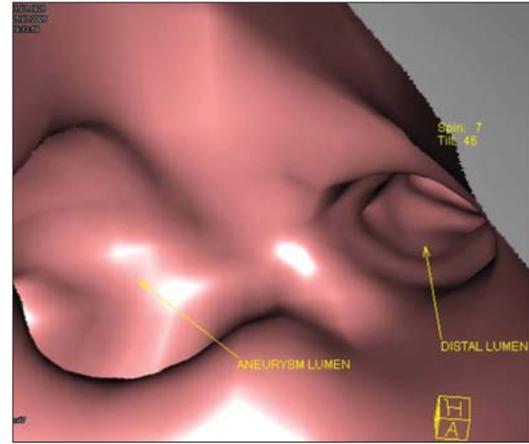


**Figure 1.** The 64-slice MDCT coronary angiography multiplanar reformatted image of small right coronary artery (RCA) aneurysm (arrow)



**Figure 2.** Conventional coronary artery angiography view of right coronary artery (RCA) aneurysm (arrow)

Although coronary angiography is considered the gold standard, MDCT angiography, which is less invasive technique, may be used for the diagnosis of CAA.



**Figure 3.** Three-dimensional virtual angioscopic image with 64-slice MDCT shows saccular aneurysmal neck and patent right coronary artery (RCA) lumen

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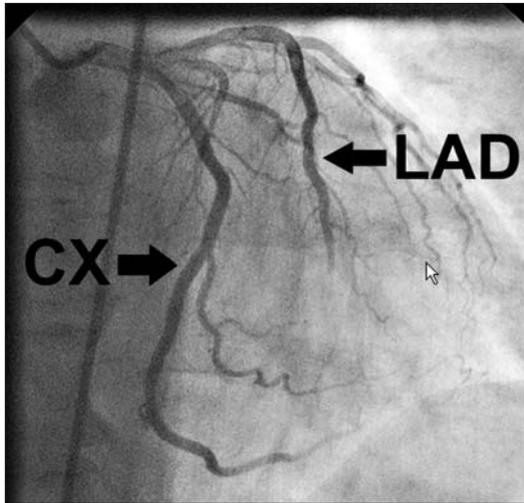
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## Coronary artery fistula associated with slow coronary flow: a rare cause of myocardial ischemia

### *Koroner arter fistülü ile koroner yavaş akım birlikteliği: Miyokard iskemisinin nadir bir nedeni*

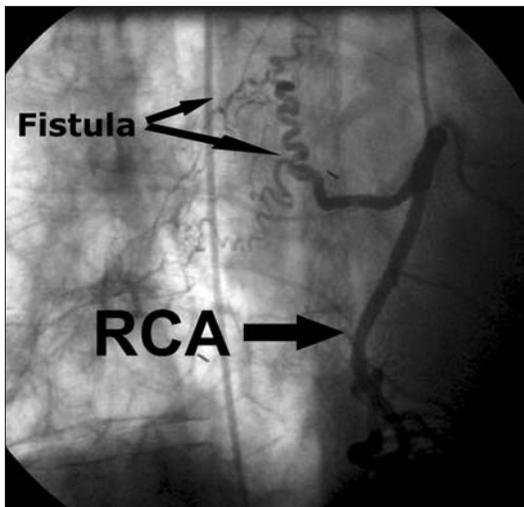
Coronary artery fistulas (CAF) and slow coronary flow syndrome (SCF) are rarely detected finding during coronary angiography. The coincidence of CAF with SCF is extremely rare and sometimes might cause myocardial ischemia.

We present a case of coronary-pulmonary artery fistula combined with SCF causing myocardial ischemia. A 55-year-old man presented with dyspnea on exertion of 6-months duration. Electrocardiogram showed diffuse T-wave inversion. Ischemia was revealed by radionuclide imaging. Coronary angiogram showed absence of significant narrowing; however, there was SCF on the left anterior descending coronary artery with TIMI frame count of 45 (Fig 1). In addition, a fistula between right coronary artery and pulmonary artery was observed (Fig. 2). Because the patient was symptomatic and myocardial ischemia was detected, we planned percutaneous closure of fistula; however, the patient refused this procedure and was treated medically. Coronary artery fistulas consist of a communication between a coronary artery and a cardiac chamber or



**Figure 1. Angiographic demonstration of the slow coronary flow phenomenon in the left anterior descending artery. Incomplete filling of LAD is shown while CX is opacified completely.**

CX - left circumflex artery, LAD - left anterior descending artery



**Figure 2. Right anterior oblique view showing the RCA and fistula.**

RCA - right coronary artery

major vessel. Therapeutic strategies of CAF are based on symptoms and shunt size. The SCF is characterized by delayed opacification of epicardial coronary arteries in the absence of stenotic lesion. It is an important clinical entity because it may be the cause of angina at rest or during exercise and acute myocardial infarction. The association of coronary artery fistulas and slow coronary flow should be kept in mind in management of patients with these types of coronary anomalies.

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## Ventriculography should be carefully monitored

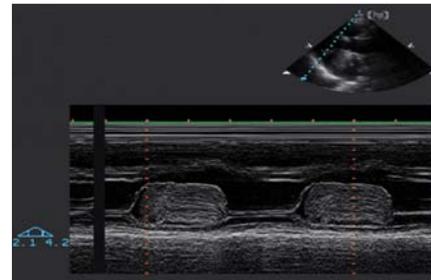


*Ventrikülografi çok dikkatli izlenmelidir*

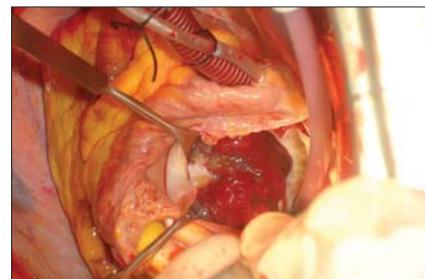
A 74 years old male patient had unstable angina pectoris. On coronary angiography, he had 90% stenosis in the left main coronary artery, so he was planned to undergo urgent surgery. However, due to a suspicious, mobile mass image in his ventriculography (Video 1. See corresponding video/movie images at [www.anakarder.com](http://www.anakarder.com)), echocardiography was performed. He had mild mitral insufficiency, severe tricuspid insufficiency, giant myxoma (Fig. 1-2), and ejection fraction of 40%, and a pulmonary artery pressure of 45-55mmHg on echocardiography. He underwent urgent operation with aorto-bicaval cannulation with cardiopulmonary bypass. Myxoma was seen in his left atrium (Fig. 3). The mass was excised totally with its pedicle (Fig. 4). Intraoperative mitral valve evaluation revealed severe regurgitation. Mitral valve repair and anastomoses to two coronary artery by pass (left anterior descending artery and first obtuse



**Figure 1. Echocardiography view of left atrial mass originating from left atrium with a diameter of 6x6.5 cm size, migrating to left ventricle in diastole**



**Figure 2. Myxoma between mitral valve leaflets on M-mode echocardiography**



**Figure 3. Intraoperative view of myxoma in left atrium**