Ana Pulmoner Artere Drene Olan Çift Taraflı Koroner Arter Fistülüne Bağlı Göğüs Ağrısı

Angina due to Bilateral Coronary Artery Fistulae Draining into Main Pulmonary Artery

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Özet
Koroner arter fistülü koroner arterler ile kalp boşlukları ve büyük damarlar arasında görülür. Daha çok sağ koroner arterden köken alır. Bilateral olanlar daha nadirdir. Biz burada 56 yaşında bilateral koroner arter fistülü olan bir olguyu bildirdik.
Anahtar kelimeler: Çift taraflı koroner arter fistülü, göğüs ağrısı, pulmoner arter.

Abstract
Coronary artery
fistula (CAF) is described as communication between coronary arteries and cardiac chambers or great vessels. Mostly, the origin of CAF is right coronary artery. Bilateral coronary to pulmonary fistula is very rare. We were reported 56 year old patient with a bilateral coronary artery fistula.
Key words: Bilateral coronary artery fistula, angina pectoris, pulmonary artery.

Introduction

Coronary artery fistula (CAF) is a rare congenital anomaly that consists of abnormal communication between a coronary artery and major vessel or cardiac chamber. Generally, these fistula are incidentally detected during coronary angiography. Congenital fistula originates mostly from right coronary artery and drains into low pressure areas such as right atrium, coronary sinus, right ventricle or pulmonary artery. Incidence of congenital coronary anomalies in population is 1%-2%, and CAFs account for 14% of these anomalies. Coronary artery to pulmonary artery fistula account 15-30% of all CAFs, however bilateral coronary to pulmonary fistula is very rare [1].

Case

A 56 year old woman was admitted outpatient clinic with anginal chest pain. Diabetic and hypertensive patient was evaluated. Her general and physical examination was unremarkable. Resting electrocardiogram and other laboratory tests were normal. Echocardiographic examination showed minimal main pulmonary arterial dilatation and other values were normal.

Coronary angiography revealed two fistula. One of these fistula stemed from right coronary ostium (Fig. 1) and the other one stemed from proximal part of left anterior descending artery (Fig. 2), both of these were draining into main pulmonary artery. No significant atherosclerotic stenosis was found in the coronary arteries. Percutaneous closure was planned to the big and tortuous fistula that stemmed from right coronary ostium. This option was discussed with patient. The patient did not accept percutaneous intervention.

Discussion

Coronary artery fistula is described as communication between coronary arteries and cardiac chambers or great vessels.

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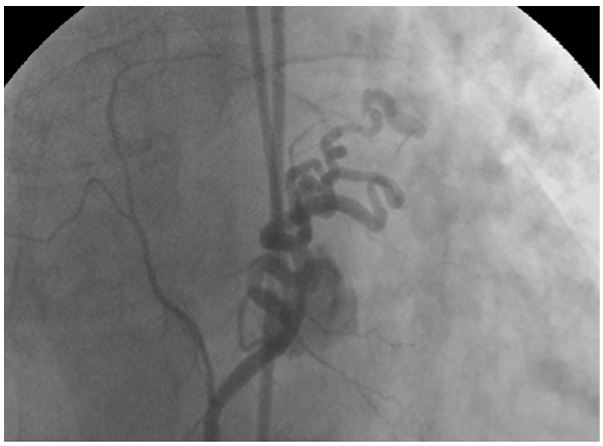

Figure 1. Right coronary angiography showing giant and tortuous coronary artery fistula into main pulmonary artery.

Drainage is generally from high pressure area to low pressure area. CAF is rare congenital anomaly and generally discovered incidentally during coronary angiography. The probability of CAF in all patients undergoing coronary angiography is 1.21-5.6% [2]. Mostly, the origin of CAF is right coronary artery with 60%, followed by left coronary artery with 35% and bilateral CAF with 5% [3]. The drainage of CAF is generally into low pressure cardiac chamber, most commonly into right ventricle with 40%, followed by right atrium with 25%, pulmonary artery with 15-20% and coronary sinus with 7% [4].

Giant CAF can cause symptoms because of steal of myocardial blood flow like our patient that admitted to hospital with angina. Patient with significant shunt may represent with heart failure and pulmonary hypertension [4-5]. Thrombosis, rupture of fistula and infectious endocarditis are long-term complications of CAFs [4-5]. There is no consensus of opinion for treatment of asymptomatic patient with insignificant shunting [6].

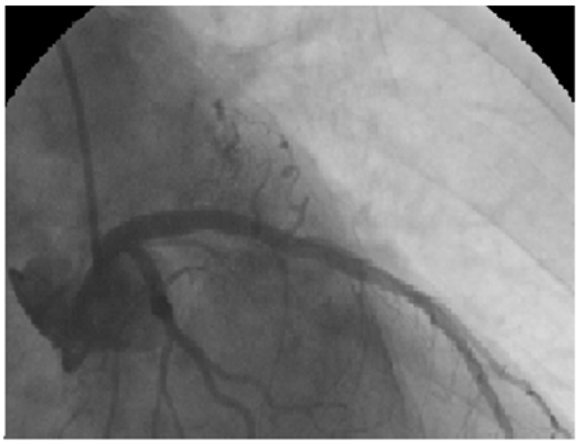

Figure 2. Left coronary angiography showing small multible coronary artery fistulae into main pulmonary artery.

Surgical ligation [7] or percutaneous interventional closure with covered coronary stent graft or detachable coil [8] can undergo in case of ischemic symptoms and symptoms of heart failure due to significant shunting. Our case is suitable for percutaneous intervention, but because of not willing for intervention we treated her conservatively.

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