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A Rare Coronary Artery Anomaly: Type 4 Dual Lad

Nadir Bir Koroner Arter Anomalisi: Tip 4 Dual Lad

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Anahtar Kelimeler: Koroner arter anomalisi, Tip 4 Dual LAD;

Keywords: Coronary artery anomaly, Type 4 Dual LAD;

A 66-year old woman with a history of hypertension was admitted with a complaint of exercise-induced chest pain. Physical examination and electrocardiogram were unremarkable. Transthoracic echocardiography was normal with a left ventricular ejection fraction (60%). The result of exercise stress test was positive in terms of ischemia. To rule out coronary artery disease, we performed coronary angiography (CAG) (Figure 1). Left CAG revealed a short left anterior descending (LAD) artery arising from the left coroner sinüs and the circumflex (LCX) artery. Rudimenter LAD coursing through the proximal part of the anterior interventricular sulcus and %30-40 atherosclerotic stenosis was detected in the proximal short LAD. The LCX was normal. Right CAG showed a normal right coronary artery (RCA) and an anomalous long LAD originating from the RCA coursing to the anterior interventricular sulcus and reached the cardiac apex. In order to better define the coroner artery anomaly, a computed tomography (CT) angiography was also performed (Image 1). According to the classification of Spindola-Franco, our case was a rare coronary artery anomaly (CAA) named as type 4 dual LAD. The patient was discharged under antiischemic treatment.

CAA is rarely seen in angiographic series about 0.3-0.8% (1). The angiographic evaluation of CAA is essential for both coronary artery intervention and surgery involving the coronary arteries. Although CAA is benign in nature and usually asymptomatic; clinical presentation in adults with CAA may result from myocardial ischemia,manifesting as angina, syncope, arrythmias and even sudden cardiac death (2). Dual LAD may be associated with congenital heart disease as tetralogy of Fallot and complete transposition of the great arteries (3). Clinicians should be aware of the coronary artery anomalies to facilitate the diagnosis and management of patients properly.

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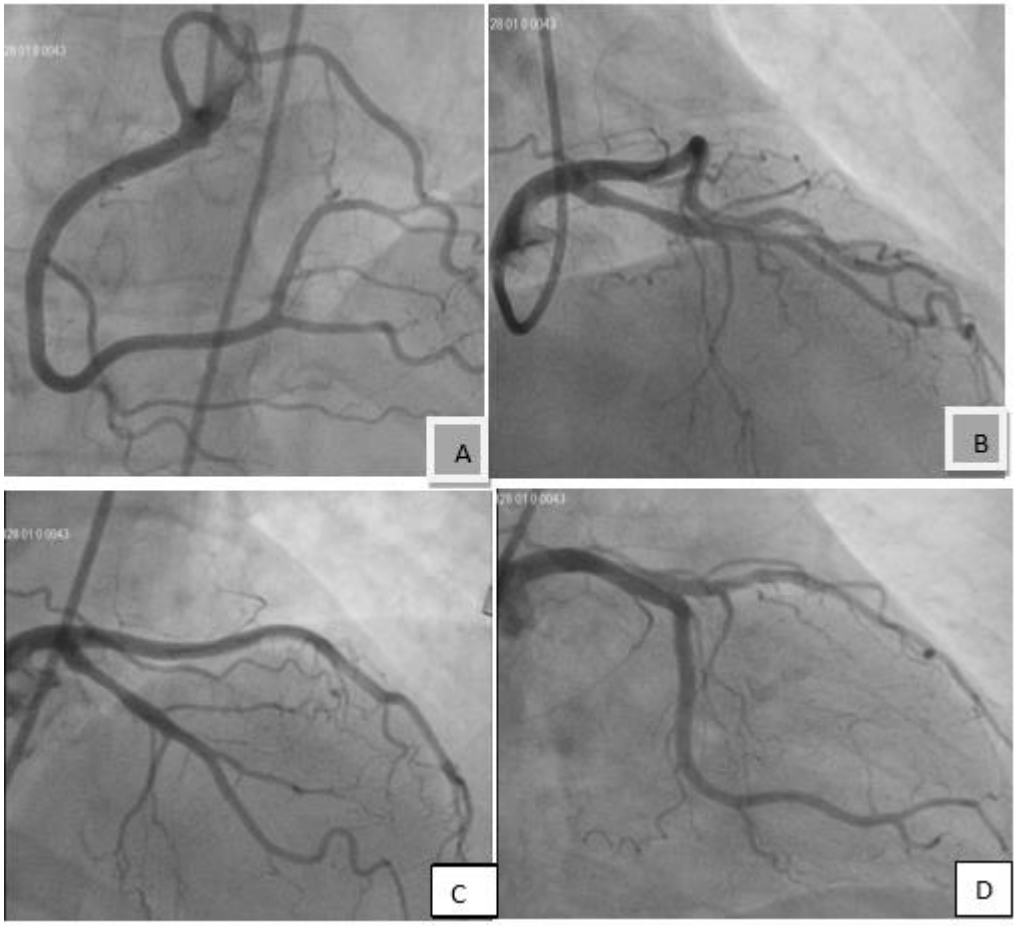

Figure 1: Coronary angiography

(1A) LAO view shows the long LAD arising from the RCA

(1B) (1C) (1D) RAO view shows the short LAD arising from the LMCA

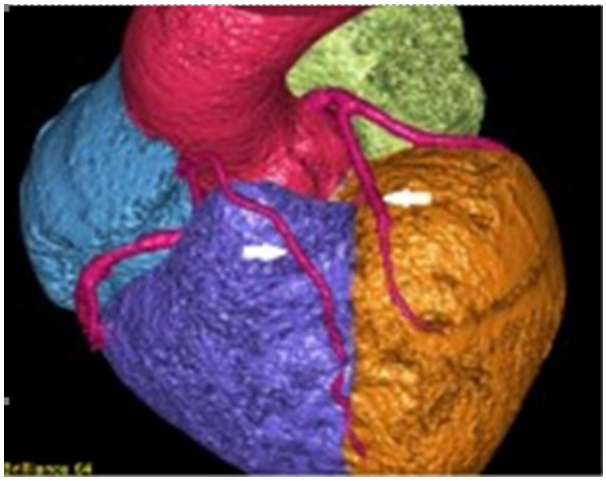

Image1: Multislice computed tomography (MSCT) of coronary arteries.

The short LAD from the left main coronary artery (LMCA),coursing through the proximal anterior interventricular septum (right white arrow) and the long LAD artery from the right coronary artery (RCA) coursing along the distal anterior interventricular septum (left white arrow).

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