



# Image of Pseudo-Stenosis of The Left Main Coronary Artery

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## ABSTRACT

Angiographic detection of critical stenosis of left main coronary artery (LMCA) dramatically alters the patient's treatment approach. Therefore it should be examined further. This image of the LMCA may be due to sharp angulation, catheter-induced spasm or the relative stenosis due to ectatic LMCA. Operators can be avoided unnecessary revascularization procedures with further investigation. We report the image of angiographically severe stenosis of the LMCA due to a sharp angulation.

**Key words:** Left main coronary artery, pseudo-stenosis, multislice computed tomography

## INTRODUCTION

It is performed by the coronary artery perfusion of the myocardium. Variation from person to person anatomical structure of the coronary arteries. Transactions during coronary angiography, coronary anomaly prevalence is more than %1. It may be occurred different functional and clinical consequences of these morphological changes (1). Critical stenosis of left main coronary artery (LMCA) detected on angiography is dramatically alter patient's treatment. Therefore, if the image is not achieved satisfactory, it should be done further testing.

## CASE

70 year-old male patient admitted to our cardiology outpatient clinic with typical chest pain and dyspnea. Blood pressure was 100/60 mmHg, heart rate was 66 bpm.

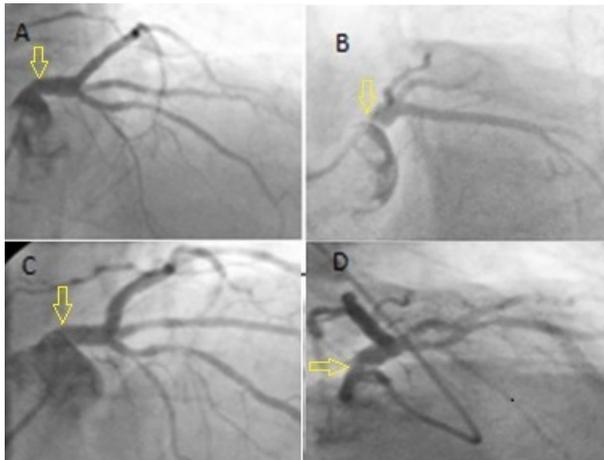
## Sol Ana Koroner Arter (LMCA)'in Pseudo Stenoz Görünümü

### ÖZET

Anjiyografik olarak tespit edilen Sol ana koroner arter'in (LMCA) kritik stenozları hastanın tedavi yaklaşımını dramatik olarak değiştirir. Bu yüzden daha ileri tetkikler yapılmalıdır. LMCA'nın bu görüntüsü keskin bir angüstasyon, kateterin indüklediği spazm yada ektazik LMCA'nın relative stenozundan kaynaklanabilir. Operatörler daha ileri bir inceleme ile gereksiz revaskülarizasyon işlemlerinden kaçınılabirler. Biz anjiyografik olarak LMCA'da keskin angüstasyonun neden olduğu ciddi stenoz görünümünü sunduk.

**Anahtar kelimeler:** Left ana koroner arter, pseudo-stenosis, multislice computerize tomografi

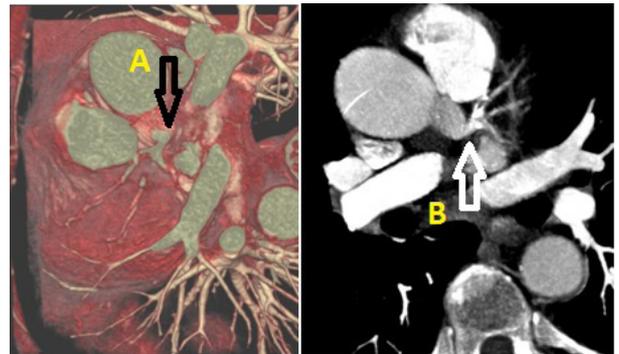
Findings of physical examination and blood tests were unremarkable. Resting electrocardiography showed nonspecific ST-segment and T-wave changes. Treadmill exercise test was abnormal then coronary angiography planned. Cardiac catheterization was performed by right radial artery. Selective injection of the contrast media into the LMCA revealed severe stenosis of the LMCA (Figure 1). Despite nitroglycerine administration, several times by back driving the catheter and taking many images from different positions, the image of the stenosis persisted. Considering the current images was not sufficient for the decision of LMCA revascularization, multislice computed tomography imaging was performed. After originating from the left aortic conus with a wide ostial cone, LMCA was seen to have an acute angulation of about 90 degrees in the middle segment when reached the intramyocardial area (Figure 2). Unlike coronary angiography images, there was no lesion in LMCA.



**Figure 1.** Coronary angiographic images of the left main coronary artery shows suspicious lesion in border of intervention.

#### DISCUSSION

During coronary angiography diagnosing significant stenosis that can appear only in some projections is difficult for the operators (1-5). This stenotic image can be caused by structural anomalies, intrinsic or catheter induced vasospasm, relative stenosis of an ectatic vessel as well as a real atherosclerotic stenosis. Therefore in coronary stenosis, especially in LMCA lesions, before making the decision of revascularization these situations should be ruled out. During angiography, when coronary stenosis is identified, images from different angiographic views should be obtained, vasospasm should be eliminated by intracoronary nitrate administration, especially when LMCA stenosis is identified, catheter should be back drive from coronary ostium and non-selective catheter induced vasospasm should be precluded (1,2,4,5). As in our case, especially in LMCA stenosis, before giving decision of revascularization, evaluation with multislice computed tomography will be helpful.



**Figure 2 .** Multislice computed tomography shows acutely angulated left main coronary artery.

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