Figure 2. Stenosis of the proximal segment of long LAD (A) and after stenting with no residual stenosis (B)

Cx - left circumflex artery, LAD - left anterior descending coronary artery, LMCA left main coronary artery

1st septal perforator and 1st diagonal branch (Fig. 1, 2). The long LAD showed 70% stenosis at the proximal segment. The short LAD was a small-caliber vessel with severe stenosis after 1st septal perforator and 1st diagonal branch. The infarct-related artery was the first diagonal branch of the short LAD, which was found totally occluded with Thrombolysis In Myocardial Infarction Flow (TIMI) grade 0 flow (Fig. 1, panel A, arrowhead). Because the vessel was very small and short, we did not perform percutaneous coronary intervention to culprit lesion. One Taxus stent (3.5x20 mm, slow release, polymer based, paclitaxel-eluting Express stent, Boston Scientific, Natick, Massachusetts, USA) was directly implanted to the long LAD lesion successfully. Coronary angiogram after stent implantation showed no residual stenosis (Fig. 2, panel B).

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Right ventricular branch misdiagnosed as non-dominant right coronary artery

Non-dominant sağ koroner arter olarak yanlış tanı konulan sağ ventrikül dalı

A 48-year-old man was admitted to our hospital with exertional chest pain. According to the clinical records, his left anterior descending coronary artery (LAD) had been stented two years ago after anterior myocardial infarction. He had normal cardiovascular examination with an arterial blood pressure of 122/84 mmHg and heart rate of 87 beats per minute. Electrocardiography showed negative T waves in anterior precordial derivations. The patient did not accept the suggested coronary angiography (CAG). Furthermore, he was not able to tolerate exercise myocardial perfusion imaging with thallium-201; so we decided to perform multislice computed tomography (MSCT), which revealed a patent stent and non-occlusive plaques on LAD. Of interest, there was a discordance between reports of previous CAG and MSCT on the right coronary artery (RCA). Despite a non-dominant RCA reported by CAG (Fig. 1), MSCT revealed a dominant RCA with its right ventricular branch (RVB) arising from right sinus of Valsalva separately (Fig. 2).

There may be problems in selective coronary artery cannulation during CAG especially in case of coronary anomalies, like in this case. It is obvious that RVB had been cannulated during CAG, and it was misinterpreted as a non-dominant RCA. In a retrospective analysis of the CAG images, it was shown that all cannulated arteries were non-dominant and left coronary arterial system did not give off any branch supplying inferior left ventricular wall.

Multislice computed tomography is a complementary diagnostic modality to CAG and should be considered especially, when proximal and ostial coronary anomalies are suspected.

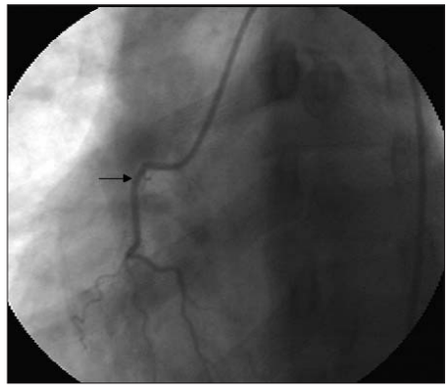

Figure 1. Selective angiography of RVB (arrow) of RCA, which was reported inaccurately as non-dominant RCA

RCA - right coronary artery, RVB - right ventricular branch

Figure 2. Multislice computed tomography imaging of RCA (thick arrow) and RVB (thin arrow) of RCA separately arising from right sinus of Valsalva

RCA - right coronary artery, RVB - right ventricular branch

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