



Percutaneous Coronary Intervention in an Elderly Patient with a Single Coronary Artery

Tek Koroner Arterli Yaşlı Bir Hastaya Perkütan Girişim

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A 70-year-old female patient presented with a history of stable angina pectoris lasting for six months. Myocardial perfusion imaging with Tc 99m-MIBI showed a reversible perfusion defect in the inferoseptal wall. Then, the patient was referred for a diagnostic coronary angiography (CA). During CA, the ostium of the left main coronary artery could not be cannulated (Figure 1A). Cannulation of the right coronary artery (using Judkins Right-4 diagnostic catheter) revealed a single coronary artery (SCA) originating from the right sinus of the Valsalva, with branches to both right and left coronary systems, which was classified as type II-B (Lipton's) (Figure 1B). A 70% lesion was noted in the circumflex artery (LCx) (Figure 1B). Contrast-enhanced cardiac computed tomography (CCT) revealed that the SCA was between the aorta and pulmonary artery (Figure 1C,D). Percutaneous intervention was performed by a femoral approach using a Judkins Right-4 6F guiding catheter. A 0.014-inch floppy guidewire advanced distally in the LCx, and a drug-eluting stent 2.5 × 16 mm in size was implanted successfully (Figure 1E). The final image revealed no complications, with excellent distal flow (Figure 1F). An isolated SCA is a rare congenital anomaly with a benign course in most patients. Nevertheless, it may be associated with angina pectoris, syncope, and sudden cardiac death. Contrast-enhanced CCT and magnetic resonance imaging are very helpful to rule out compression of anomalous coronary arteries coursing between the pulmonary artery and aorta. Moreover, PCI of a SCA is considered high-risk intervention due to potentially catastrophic consequences in case of complications, such as dissection or thrombosis. Hence, documentation of ischemia and gentle manipulation during PCI should be standard of care.

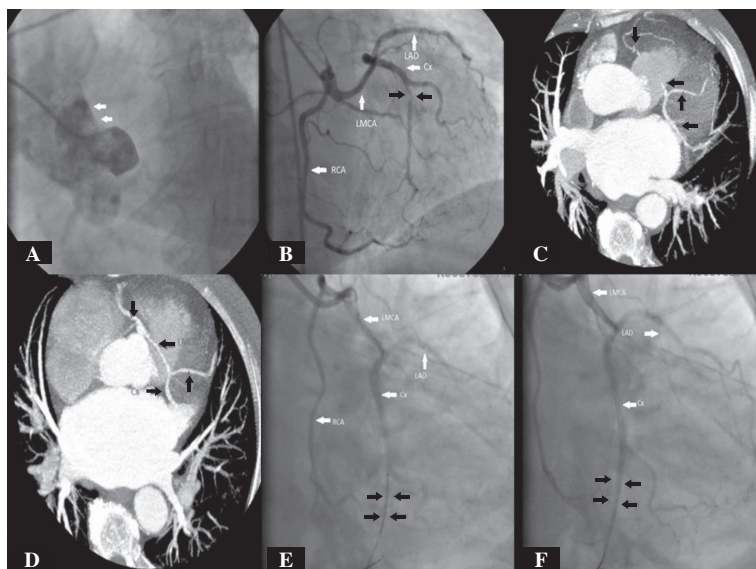


Figure 1. (A) Anteroposterior view of coronary angiography shows a blunt left sinus (arrow) with no coronary origin. (B) Left cranial view of coronary angiography shows both the right and left coronaries originating from the right sinus and a 70% lesion in the LCx. (C) CT coronary angiography shows the LAD and LCx originating from the left main. (D) CT coronary angiography coronal axis image shows the pre-aortic course of the LMCA. (E) Coronary angiography shows the right caudal fluoroscopic view of the LCx during stent deployment. (F) Final angiographic result of the LCx after percutaneous coronary intervention. LMCA: Left main coronary artery, RCA: Right coronary artery, LCx: Circumflex artery, LAD: Left anterior descending artery.

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Submitted: 10.02.2017

Accepted: 01.03.2017

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