

## CASE IMAGE

## Inferior and anterior ST-segment elevation and successful percutaneous coronary intervention in a patient with anomalous right coronary artery originating from the mid-left anterior descending artery

*Sol inen koroner arterin orta bölümünden köken alan sağ koroner arterli inferior ve anterior ST segment yükselmeli hastaya başarılı perkütan koroner girişim*

Özgür Kaplan

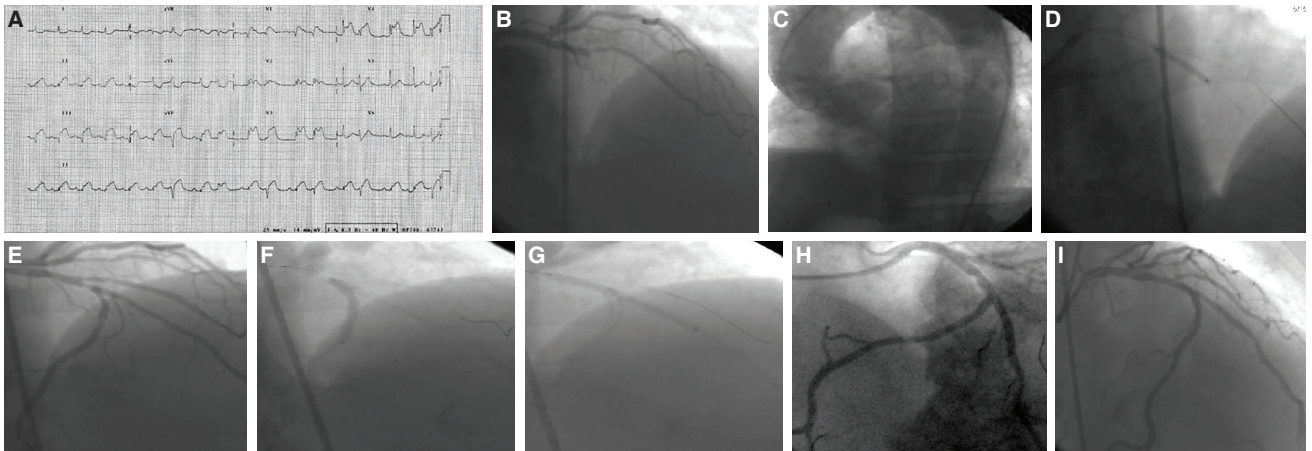
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A 65-year-old male patient presented with the complaint of increasing angina ongoing for 3 hours. The initial electrocardiogram demonstrated anterior and inferior myocardial infarction (Figure A). The patient was immediately

transferred to the cardiac catheterization laboratory and coronary angiography via left transfemoral approach was performed. Coronary angiography proved to be difficult, however, as the right coronary artery (RCA) was not visible on aortography. The left coronary artery angiography revealed normal left main coronary artery, total occlusion in the left anterior descending (LAD) artery after the D1 branch, and mild atherosclerotic disease in the left circumflex coronary artery (Figure B-E; Video 1\*). Percutaneous coronary

intervention (PCI) was performed to restore perfusion in the LAD. After a 6-Fr guiding catheter was placed into the left coronary ostium, dilation was performed in the occluded lesion in the LAD with a 2.5-mm balloon. Contrast was injected, and it was observed that the RCA originated in mid-LAD. Both RCA and LAD had stenotic lesions. PCI was performed for the RCA and then the LAD. After the floppy wires were advanced into the arteries, a 3.0-mm drug-eluting stent (DES) was implanted in the RCA, followed by the same implantation in the LAD. Final kissing balloon technique was applied and PCI was successfully concluded (Figure F-I; Video 2\*). To the best of our knowledge this is the first case of addressing 3 priorities simultaneously: anomalous single coronary artery, RCA originating from the middle of the LAD, and PCI in single coronary artery with anterior and inferior myocardial infarction.



**Figures– (A)** Electrocardiography image of patient with anterior and inferior myocardial infarction. **(B)** Left coronary angiogram in left anterior oblique projection with caudal angulation showing abnormal left main coronary artery and total occlusion of the left anterior descending (LAD) artery after first diagonal branch. **(C)** Aortography in left anterior oblique view revealing absence of right coronary ostium in the right sinus of Valsalva. **(D)** Right anterior oblique and cranial view during the first balloon dilatation of occluded LAD. **(E)** Right anterior oblique and cranial view of left coronary angiography showing LAD and aberrant right coronary artery. **(F)** Right anterior oblique and cranial view of left coronary angiography showing stent implantation from the left anterior descending (LAD) to the aberrant right coronary artery (RCA). **(G)** Right anterior oblique and cranial view of left coronary angiography illustrating stent implantation in the LAD through RCA stent. **(H)** Left anterior oblique and cranial view of left coronary angiography after stent deployment. **(I)** Right anterior oblique and cranial view of left coronary angiography after stent deployment. \*Supplementary video files associated with this presentation can be found in the online version of the journal.