

## Intercoronary communication between the right and circumflex coronary artery with bidirectional flow: without obstructive coronary artery disease

### Obstrüktif koroner arter hastalığının olmadığı sağ ve sirkumfleks arterler arasında çift yönlü akım gösteren interkoroner bağlantı

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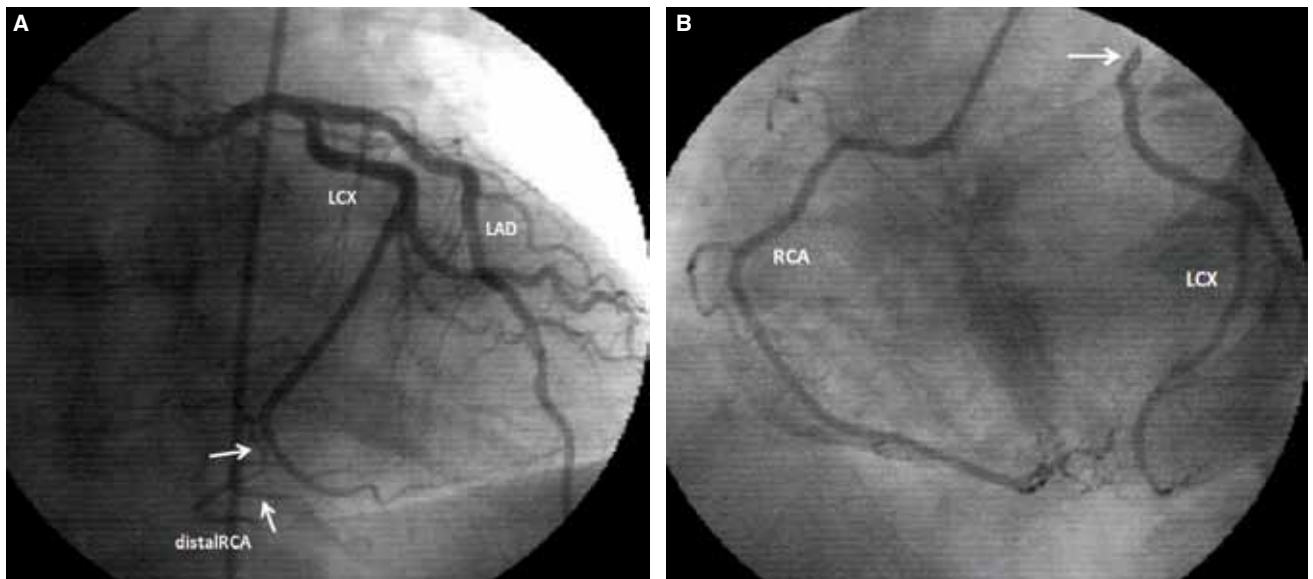
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A 40-year-old man was admitted to our hospital with chest discomfort suggesting stable angina pectoris. He had no risk factors for atherosclerosis. He had a two month history of chest pain, which was sometimes precipitated by effort. Physical examination was entirely normal. On admission,

his resting ECG and cardiac enzyme levels were normal. Chest X-ray and transthoracic echocardiography were within normal limits. Treadmill exercise electrocardiogram showed a 1 mm ST segment depression in the inferior-posterior leads. Coronary angiography was

performed. Selective injection of the left coronary system showed contrast material into the normal left coronary which filled the left circumflex artery (LCx) in the usual anterograde fashion and resulted in rapid visualization of the distal right coronary artery (RCA) (Fig. A, Video 1\*). There was no observable lesion on the left anterior descending (LAD) and left circumflex artery. However, with the selective injection of the right coronary system, the RCA, LCx and proximal and mid portion of the LAD were simultaneously visualized (bidirectional intercoronary communication) (Fig. B, Video 2\*). Intercoronary artery communication is a very rare variant of the coronary circulation. Two types have been described: communication between the left anterior descending and posterior descending artery in the distal interventricular groove and communication between the LCx and the RCA in the posterior atrioventricular groove, as described in our case.



**Figures– (A)** Selective injection of the left coronary artery showed a connection (arrows) between the LCx and the distal part of the right coronary artery. **(B)** Injection of the right coronary artery showed retrograde filling of the LAD (arrow) and LCx artery via the communication. \*Supplementary video files associated with this presentation can be found in the online version of the journal.

