

A coronary artery angiographic view of an intercoronary connection together with a coronary artery fistula

Interkoroner bağlantının ve koroner arter fistülünün aynı koroner arter anjiyografi kesitinde görüntülenmesi

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A 50-year-old woman was admitted to our hospital with chest pain. Her past medical history was unremarkable, and she had risk factors for coronary artery disease (CAD) that included hypertension, smoking, and a familial history. Her physical examination and blood studies were normal, and her baseline electrocardiogram revealed non-specific ST-T changes in V1-6 derivations. Because of the suspected CAD, coronary artery angiography via a femoral artery was performed, and a reduced flow was detected at the proximal-to-middle segment of the left anterior descending artery (LAD). It also showed an intercoronary connection between the LAD and the right coronary artery (RCA) along with a coronary artery fistula in the right chambers at the ending point of the intercoronary connection (Figure 1). In addition, the RCA was totally occluded after this segment (Figure 2).

Multi-slice computed tomography (CT) coronary angiography was then planned to determine the exact anatomy of these abnormalities, and it also showed that the same coronary artery was draining into the right ventricle (Figure 3). Afterwards, myocardial perfusion scintigraphy was used to detect whether there was any ischemia, and the result was normal. Therefore, medical therapy was scheduled.

An intercoronary connection and a coronary artery fistula are uncommon entities, but for them to appear concurrently in the same patient is extremely rare.^[1] Identifying the differences between the

intercoronary connection and collateral circulation is a substantial undertaking. The collateral vessels are usually shorter than 1 mm and are tortuous, whereas the vessels which communicate between the two coronary arteries in the intercoronary connection are longer than 1 mm and straight.^[2] In addition, coronary

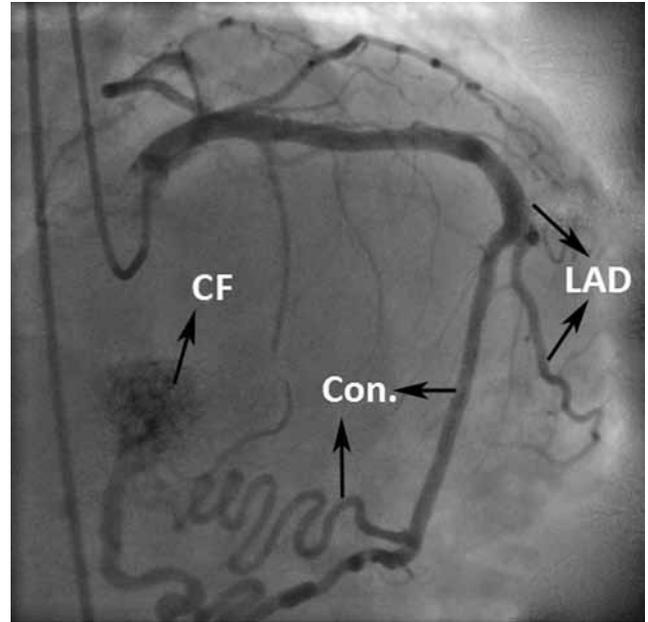


Figure 1. Coronary artery angiography showing of the right anterior oblique projection showing the left anterior descending artery (LAD), intercoronary connection (con), and coronary artery fistula (CF).



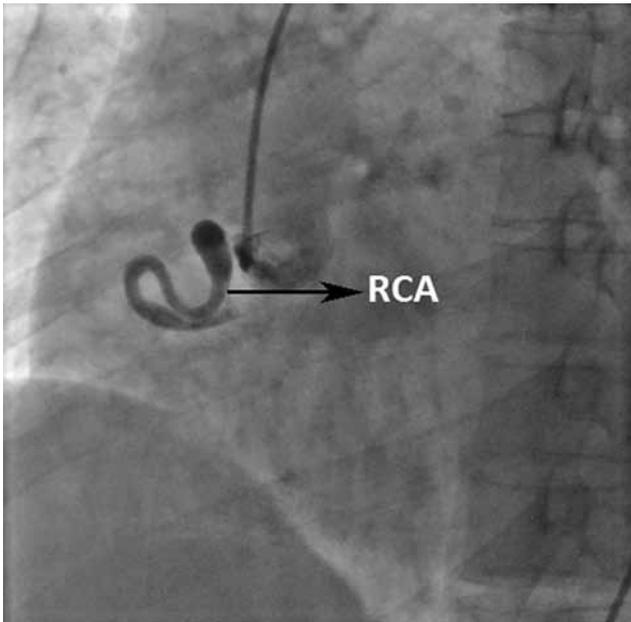


Figure 2. Coronary artery angiography of the right anterior oblique projection showing the right coronary artery (RCA).

artery fistulas often originate from the RCA or its branches and drain into the right chambers of the heart, and more than 90% of these fistulas drain into the right ventricle.^[3]

The appearance of an intercoronary connection and a coronary artery fistula in the same coronary artery angiography session is a rare occurrence, and the patient's clinical status should be considered before planning any treatment procedure.

Declaration of conflicting interests

The authors declared no conflicts of interest with respect to the authorship and/or publication of this article.

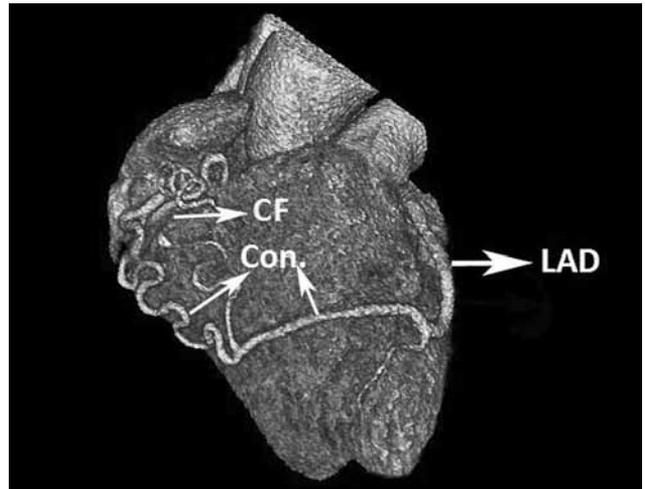


Figure 3. Multi-slice computer tomography coronary angiography showing the left anterior descending artery (LAD), intercoronary connection (con), and coronary artery fistula (CF).

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