

Image in cardiology

Double Coronary Artery Anomaly: A Rare Case



Doble anomalía coronaria: un caso poco frecuente

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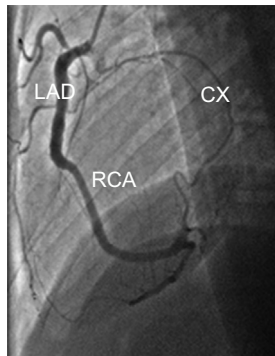


Figure 1.

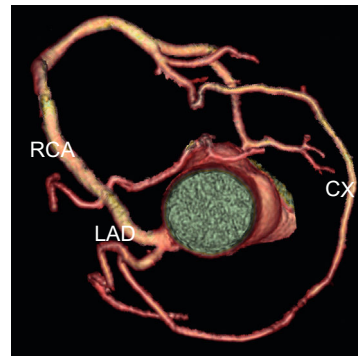


Figure 2.

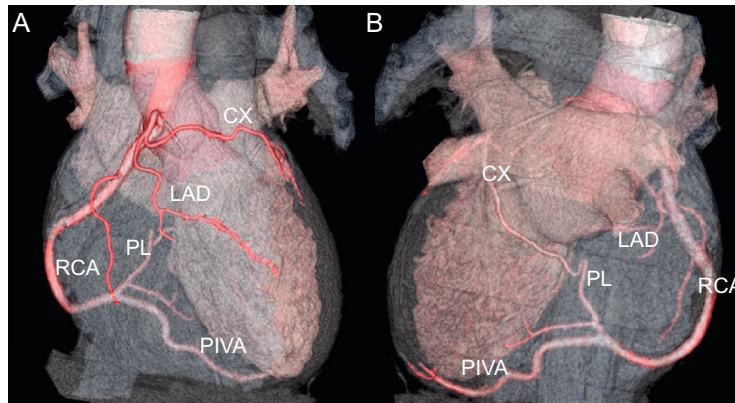


Figure 3.

A 38-year-old male, smoker, with no other risk factors, was hospitalized for an anterolateral ST-segment elevation acute coronary syndrome, successfully treated with fibrinolysis. Ventriculography findings were normal. Coronary angiography (Figure 1) showed a single right coronary artery (RCA) with no lesions that gave rise to a poorly developed left coronary tree. A small-caliber left anterior descending artery (LAD) arose from a conus branch of the proximal segment of the RCA and followed an anterior infundibular course. The circumflex artery (CX) originated at the same position, ran along the atrioventricular sulcus, and formed an intercoronary connection (Figure 2) with the posterolateral (PL) artery. Another artery arose from the middle segment of the RCA, and ran toward the CX territory following a retroaortic course. The posterior interventricular artery (PIVA) continued from the distal RCA with a long recurrent apical branch that supplied the apex. Computed tomography angiography (Figures 3A and B) confirmed the absent left coronary ostium and the coronary angiography findings. Because there were no coronary artery stenoses, medical treatment was established.

The incidence of coronary artery anomalies seen on coronary angiography studies ranges from 0.3% to 1.3%, and there are very few cases of single coronary arteries (0.0024%-0.066%). A left coronary vessel originating from the RCA usually occurs at only one RCA segment. There are no published reports describing a single RCA (right hyperdominance) in which the left coronary arteries simultaneously arise from the proximal, medial, and distal portions of the RCA and are associated with an intercoronary connection.

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