

CASE IMAGE

A rare coronary anomaly: Left anterior descending artery emerging as a distal branch of the right coronary artery

Nadir görülen koroner anomali: Sağ koroner arterin distalinden oluşan sol ön inen arter

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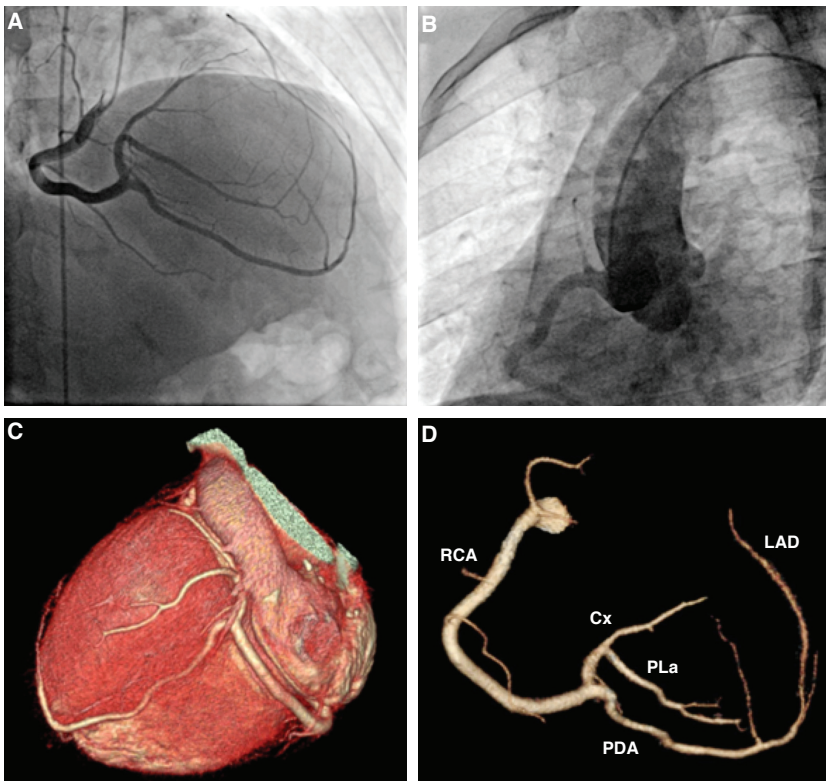
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Single coronary artery (SCA), defined as a coronary artery that arises from the sinus of Valsalva and supplies the entire heart, is a rare, congenital anomaly. Presently described is an uncommon case of a left anterior descending artery (LAD) and circumflex artery (LCx) with the anomalous origin of arising as a continuum of the right coronary artery (RCA). A 45-year-old male with a history of hypertension was admitted to the hospital for exertional chest pain ongoing for 1 month. The results of a physical examination, baseline electrocardiography, and echocardiography of the patient were normal. An exercise electrocardiogram revealed dynamic changes with ST-segment depression in the V 3-6 leads. Due to the absence of an origin for the left main coronary artery, attempts to illustrate the left coronary system failed. A right coronary angiogram was performed and it showed that the LCx and LAD were, respectively, arising from the proximal part of the RCA and the posterior descending branch of the RCA (Fig. A). An aortic root injection was performed to obtain a conclusive result, and it confirmed exclusive RCA origin (Fig. B). During all of these procedures it was also observed that there was no significant stenosis of any of the 3 coronary arteries. Coronary computed tomography angiography also confirmed the single coronary artery originating from the right coronary sinus (Fig. C,

D). In this case, medical treatment was pursued, given the absence of coronary stenosis, compression by the great arteries, and acute ostial angulation.



Figures– (A) Left anterior oblique view of the right coronary artery (RCA) illustrating the left circumflex artery arising from the proximal part of the RCA, and the left anterior descending artery arising as a continuum of the posterior descending branch; **(B)** Aortic root angiography demonstrating the single origin point of the right coronary artery. **(C, D)** Multislice 3-dimensional cardiac computed tomography images showing the anomalous origin of the left anterior descending artery as a continuum of the right coronary artery.