Detection of Anomalous Origin of the Righ Coronary Artery from the Posterior Coronary Sinus with Multi-Detector Row Computed Tomography

PATRICIA CARRASCOSA, (*), CARLOS CAPUÑAY (*), ALEJANDRO DEVIGGIANO (*) MTSAC

Coronary anomalies of origin or course are uncommon, and occur in 0.5-1% of the overall population. Most of the anomalies are minor or benign, and they have no clinical significance. However, some are classified into major or malignant coronary artery anomalies, and they are associated with myocardial ischemia, myocardial infarction, syncope, or sudden death.

Multi-detector row computed tomography can create anatomically-detailed, three-dimensional images of the coronary tree, heart chambers and great vessels. At present, this is the best alternative for evaluating coronary anomalies because it is a non-invasive method, and because it can accurately determine its origin, path and relationship between the anomalous vessel and its surrounding structures. A case of a very rare benign coronary anomaly is reported, which consists of the anomalous origin of the right coronary artery (RCA) in the posterior coronary sinus (PCS) or noncoronary sinus.

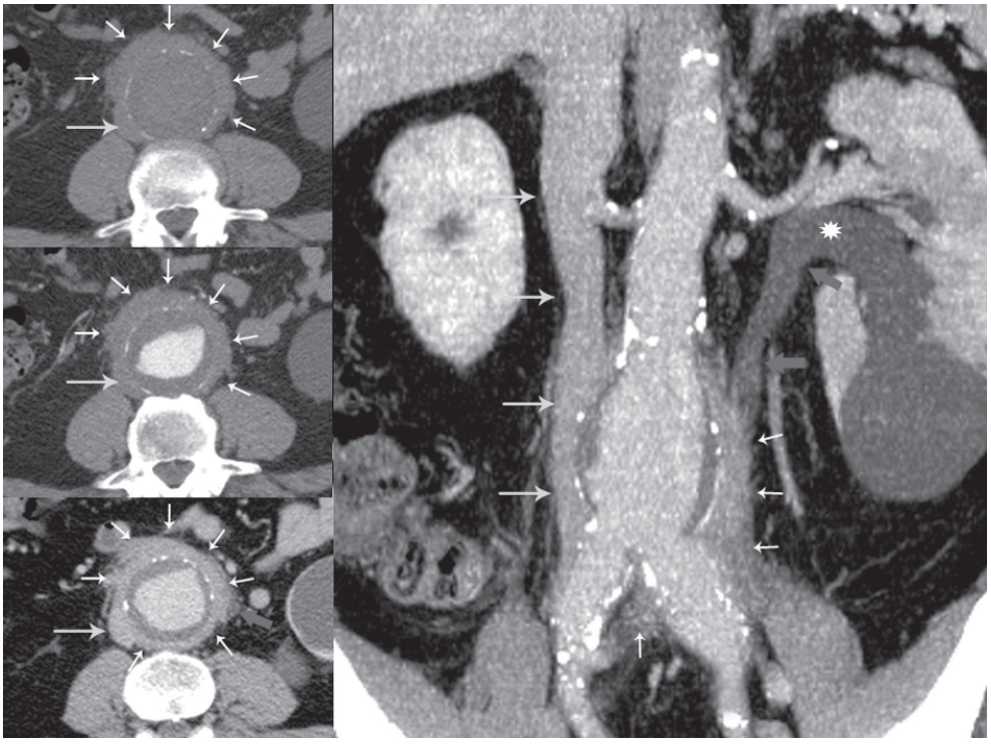

Fig. 1. A & B. Axial images showing the anomalous origin of the CA in the PCS, the absence of ostium in the right coronary sinus (RCS), and the presence of left main coronary artery (LMCA) ostium in the left coronary sinus (LCS). **C.** Curved multiplanar reconstruction of the RCA, with no evidence of disease. **D & E.** 3D reconstructions of the coronary tree, which show the anomalous origin of the CA in the PCS, and the absence of coronary ostium in the LCS. ADA, anterior descending artery, Cx, circumflex artery. **F.** Superior virtual endoscopic view of the aortic root at the level of the coronary sinus. The solid arrow shows the normal origin of LMCA in the LCS, and the dotted arrow shows the anomalous origin of the RCA in the PCS.

Department of Non-Invasive Cardiovascular Studies, Diagnóstico Maipú.
Address for reprints: Patricia Carrascosa. Av. Maipú 1668, (B1602ABQ) Vicente López, Buenos Aires, Argentina.
E-mail: investigacion@diagnosticomaipu.com.ar