Images in Cardiology

A Case of Double RCA

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Coronary angiogram was done in a patient with history of IHD. His left coronary artery showed significant stenosis in the proximal LAD and Ramus intermedius. Right coronary artery has got a single ostium followed by double right coronary artery. The prevalence of congenital anomalies of the coronary arteries (CAAs) is reported to be approximately 0.2-1.4% of the general population. Double right coronary artery (RCA) is a very rare coronary anomaly. It was been reported 37 times and in 44 cases (since September 2011). Sometimes it is also mentioned as 'Split RCA'. Separate origin of the conus branch or right ventricular branch from the right sinus of Valsalva were excluded in most of the angiographic studies. There is no



Fig.-1: Double RCA with a common ostium in AP Cranial view

consensus regarding the diagnosis of 'Double RCA'. One of the definitions is 'Double RCA is a right coronary system formed of two distinct branches running very closely together in the atrioventricular groove, for at least half of the entire course of the right coronary artery. It may arise from a single ostium or two separate ostia from the right coronary sinus. It is very difficult to interpret as either double RCA arising from a single ostium or a high take off of a large right ventricular branch by looking at angiographic views. RAO view of RCA is of great help in this case. Double RCA is considered a benign condition. But atherosclerosis of RCA, inferior myocardial infarction and sudden cardiac death has been reported in patients with 'double RCA'.

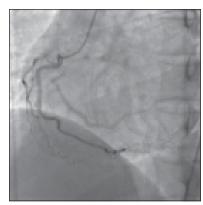


Fig.-2: Double RCA with a common ostium in LAO Cranial view

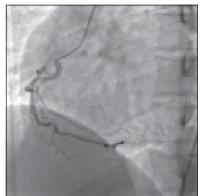


Fig.-3: Double RCA with a common ostium in LAO Cranial view