Coronary Artery Fistulas from Both Coronary Arteries to Pulmonary Artery Detected by Multi-Slice Cardiac Computed Tomography

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A 57 old man was admitted for exertional dyspnea and chest pain. During workup, a chest computed tomography scan was performed and a very large and unusual arterial structure was observed in the left anterior descending position. The patient was referred for evaluation by cardiac multi-slice CT. Non-invasive coronary angiography was performed using a 40-slice CT (Brilliance, Philips, Haifa, Israel). The scan showed a tortuous aneurismatic arterial duct with large saccular dilatations originating from the proximal LAD and connected to the left pulmonary artery. A similar structure was seen originating from the right coronary artery [Figure]. The patient was referred for cardiac catheterization, which confirmed the presence of a fistula from the LAD to the left pulmonary artery and from the right coronary artery to the left pulmonary artery. There was no evidence of obstructive coronary artery disease.

Coronary arteriovenous fistulas to pulmonary arteries constitute a very rare congenital anomaly. Burma et al. [1] reported a similar case with two fistulas from the right coronary artery and left main coronary artery to the pulmonary artery by angiography. To the best of our knowledge there are no reports of this anomaly using MSCT. Thus, MSCT represents a useful non-invasive diagnostic tool for the assessment of congenital coronary anomalies.

References

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