Abstract: P706

LMCA and LAD coronary ectasia in an asymptomatic young patient reassessment with multimodality imaging after 17 years

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Topic(s):
Cross-Modality and Multi-Modality Imaging Topics

Citation:
A 25 years old male patient was referred to an advanced center because of 2/6-degree systolo-diastolic murmur heard at meso-cardiac area during his pre-military routine examination. ECG revealed T wave inversions at standard D1 to D3 and precordial V1 to V4 leads, treadmill was non-diagnostic for ischemia.

In his transthoracic echocardiogram, measurement of heart chambers and wall thicknesses were within normal range with normal wall motion of the left ventricle, EF was 55%. 2D and color-Doppler echocardiography revealed a cystic structure with venous flow in it at the right ventricular apex, and created a suspicion of a fistula. Myocardial perfusion scintigraphy showed ischemia at the apical sections of the septal wall. He underwent coronary angiography, LMCA and proximal LAD were ectatic, LAD ectasia was in consistent with the first septal branch, circumflex (Cx) and right coronary artery (RCA) angiograms were normal. LAD flow was examined and no fistula was detected. Right and left ventriculography revealed normal ventricular functions, oxygen saturations were 70.9% in pulmonary artery, 70.4% in right ventricle, 72.9% in right atrium, and 97.4% in the aorta. Pulmonary capillary wedge pressure was 10 mmHg, pulmonary artery pressure 10/26/5 mmHg, right ventricular pressure 13/6 mmHg, left ventricular pressure 120/0/8 mmHg. Further investigations for etiology and congenital malformations were planned and the patient was discharged with oral anticoagulant therapy.

The patient had no contact with the outpatient clinic for 17 years. At the 17th year of the diagnosis he was called and reevaluated. He was still asymptomatic and osculation findings were the same. Transthoracic 2D and 3D and color-Doppler echocardiography revealed the same cystic structure at the right ventricular apex, but this time with no-flow. Coronary CT angiography was performed, LMCA was ectatic and the diameter was 8.1 mm, proximal LAD was ectatic and the diameter was 6 mm, ectasia was in continuous with the first septal branch. The ectatic septal branch was at the apical level of the right ventricle, appearing like a cystic structure with a diameter of 2.8 cm, and the lack of contrast enhancement was thougt to be in consistent with thrombus formation. Cx and RCA artery calibrations were found to be normal. In order to confirm the diagnosis of thrombus formation, MR angiography was performed. Perfusion MRI showed no evidence of thrombus in the ectatic septal branch.
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