

Image in cardiology

Coronary-pulmonary fistula with focal aneurysm of the diagonal artery

Fístula coronariopulmonar con aneurisma focal de la arteria diagonal

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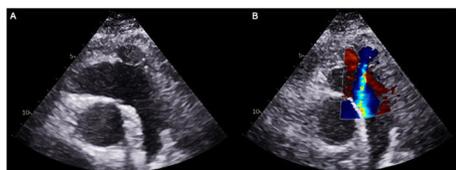


Figure 1.

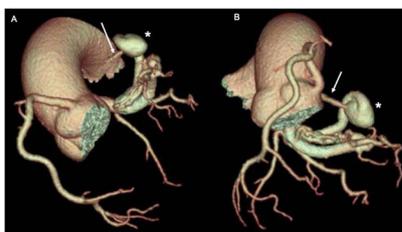


Figure 2.



Figure 3.

A coronary aneurysm was incidentally found in a 60-year-old woman with hypertension and dyslipidemia who underwent chest computed tomography (CT) as part of a staging study of adenocarcinoma of the colon. The relevant consent was obtained. She reported symptoms of dyspnea and occasional atypical chest pain. Transthoracic echocardiography revealed high-velocity holodiastolic flow from an epicardial vessel parallel to the pulmonary artery that fed into the main pulmonary artery, which indicated a coronary-pulmonary fistula (figure 1A,B). To assess its functional impact on myocardial perfusion, we elected to perform dobutamine stress echocardiography, given its ready availability in our center; the results were negative for ischemia.

CT angiography of the coronary arteries was requested to appropriately characterize the anatomy; the test revealed that the first diagonal branch had a tortuous route and a markedly increased diameter, with aneurysmatic dilatation of its distal portion of 19×16 mm (figure 2A, asterisk, CT angiography with volume rendering, anteroposterior projection). In the main pulmonary artery, there was a small linear extravasation of contrast agent that matched the Doppler color flow noted in the echocardiogram (figure 2A,B, arrows; figure 3, arrow). At 1 year, a repeat follow-up CT angiogram of the coronary arteries showed no growth, and the patient remained asymptomatic. Taken together, in consideration of the negative test result for ischemia, a conservative approach was chosen.

Coronary fistula associated with aneurysm is an infrequent diagnosis in CT angiography performed for other causes, as well as in the study of patients referred for murmur or chest pain. The combination of the clinical symptoms with the anatomical and functional tests was key to the management of this entity.

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AUTHORS' CONTRIBUTIONS

All authors have contributed equally to the drafting of this manuscript.

CONFLICTS OF INTEREST

No conflicts of interest are present.

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