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The 64-slice computed tomography of a coronary artery fistula communicating with the right ventricle

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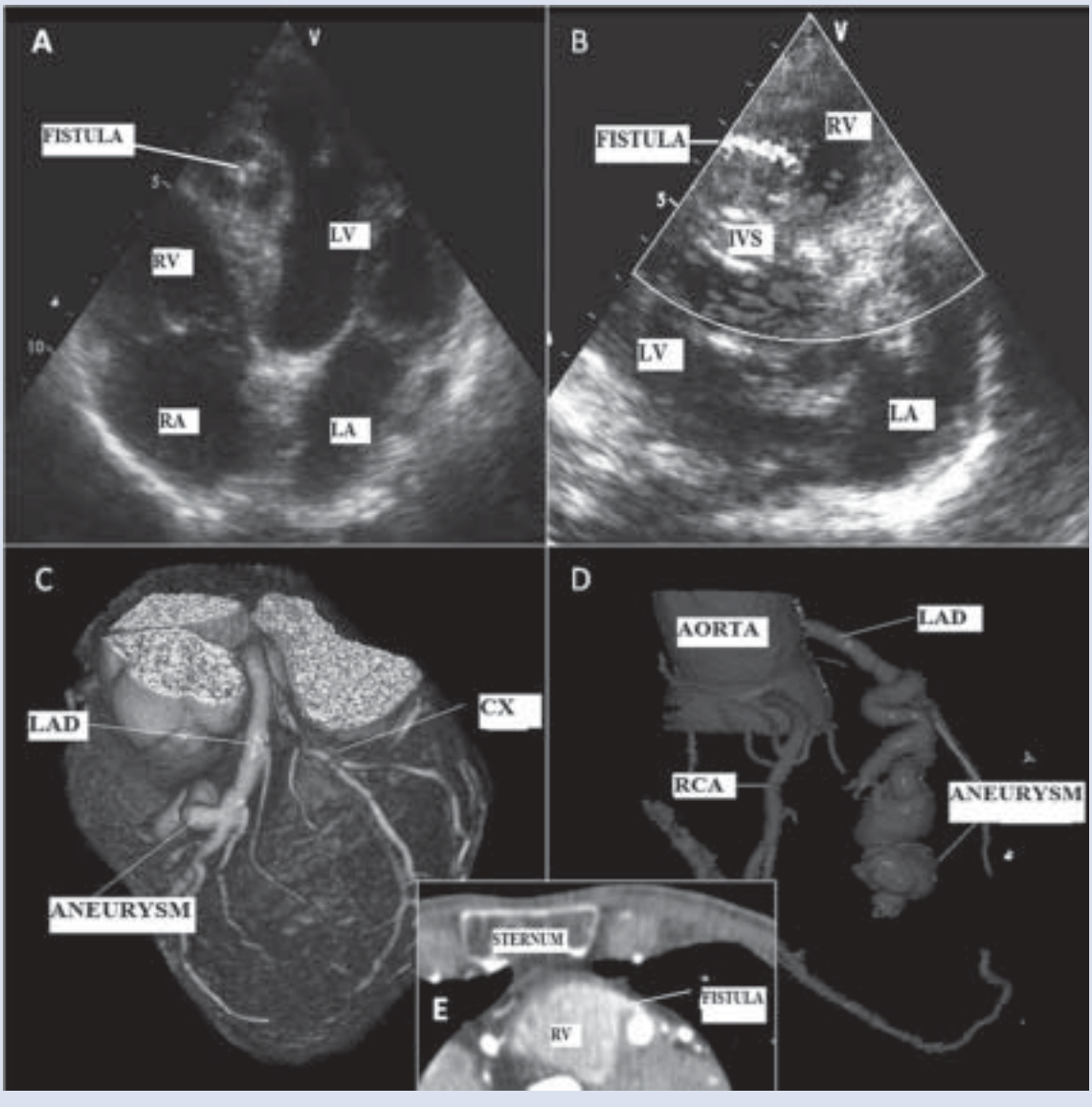

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A 79-year-old man was sent by a general practitioner for diagnosis of a "strange murmur". He was totally asymptomatic and his history was unremarkable. Physical examination revealed only a continuous systolic/diastolic murmur best heard over the left sternum border. ECG and chest X-ray examination were normal. Echocardiography showed normal heart chambers without any valvular defects and a weird structure inside the intraventricular septum (Panel **A**). Colour-Doppler examination visualized blood flow through this anomaly and possible communication with the right ventricle (Panel **B**). Because the patient chose not to have coronary angiography, 64-slice multi-detector row computed tomography was performed. The computed tomography revealed normal coronary arteries without significant stenoses and one additional vessel — a branch of the left anterior descending artery, forming two aneurysms (1.5 × 1.9 cm and 2.3 × 1.8 cm) and then entering the intraventricular septum (Panel **C**, **D**). The vessel was situated very close to the left ventricle, but without clear communication, and finally entered the right ventricle (Panel **E**). The patient was discharged without any intervention and has now been subject to a 6-month follow-up without any complaints or changes in echocardiography since first examination. Coronary artery fistula is a very rare abnormality of coronary circulation. It is mostly congenital but acquired forms can also occur. Fistulas are usually asymptomatic, accidentally discovered during coronary angiography. In the presented case, diagnosis was based only on 64-slice computed tomography — a very powerful tool for visualization of coronary artery abnormalities.