Bilateral coronary artery fistula as a cause of angina pectoris

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DESCRIPTION

A 75-year-old female patient was admitted to our hospital presenting with episodes of exhausted chest pain for 2 years. A continuous murmur was heard over the precordium. The repeated ECG and echocardiograms were normal. At cardiac catheterisation, a left-to-right shunt of 1.33:1 (Qp: Qs) was found. Coronary angiography showed one fistula arising in left anterior descending artery ending in the left atrium (figure 1A–D), and a second fistula arising in right coronary artery and terminating in the pulmonary artery (figure 1E, F). Multislice CT angiography (figure 2) showed the left and right fistulas entering the left atrium and the pulmonary artery, respectively. The patient was referred for surgical ligation of the fistulas. After 2 weeks the patient was discharged and she has shown symptom-free at follow-ups. Generally, most coronary artery fistulas (CAFs) manifest as a single fistula and drain into one of the cardiac chambers; cases of multiple fistulas are rare. According to the site of drainage, CAFs have varied physiological presentations.¹ A fistula that drains into the left atrium does not result in a left-to-right shunt, but rather causes a volume load

Figure 2 Multislice CT angiography showed the left (black arrow) and right fistulas (red arrow) entering the left atrium and the pulmonary artery, respectively.

similar to mitral regurgitation. The CAFs that drain into the pulmonary arteries are similar haemodynamically to a patent ductus arteriosus.

Figure 1 Coronary angiography showed one fistula (black arrow) arising in left anterior descending artery ending in the left atrium (A–D), and a second fistula (red arrow) arising in right coronary artery and terminating in the pulmonary artery (E and F).

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Learning point

Most coronary artery fistulas (CAFs) are often clinically silent and inconsequential. However, bilateral CAFs may have a clinical and embryological significance on the basis of coronary steal phenomenon.² There appears to be good consensus that all symptomatic patients should undergo closure of medium or large CAFs.

Competing interests None.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

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