Objective: A 75-year-old female patient was admitted to our hospital presenting with episodes of exhausted chest pain for 2 years.

Methods: 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 (LAD) ending in the left atrium, and a second fistula arising in right coronary artery (RCA) and terminating in the pulmonary artery. Multislice computed tomographic angiography 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. Two weeks later the patient was discharged and she has shown symptom-free at follow-ups.

Results: 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 physiologic presentations. A fistula that drains into the left atrium does not result in a left-to-right shunt, but rather causes a volume load similar to mitral regurgitation. The CAFs that drain into the pulmonary arteries are similar hemodynamically to a patent ductus arteriosus. Most CAFs are often clinically silent and inconsequential. However, bilateral CAFs may have a clinical and embryological significance on the basis of coronary steal phenomenon.

Conclusions: There appears to be good consensus that all symptomatic patients should undergo closure of medium or large CAFs.