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Coronary-Cameral Fistula Following Myectomy in Hypertrophic Obstructive Cardiomyopathy

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Case Description

A 43-year-old woman was admitted to the hospital with chest pain. Her medical history was clinically significant for hypertrophic obstructive cardiomyopathy, for which she underwent a septal myectomy 10 years before presentation, and an apical aneurysm with left ventricular thrombus, for which she was prescribed anticoagulation therapy. Given her presentation and cardiac history, a transthoracic echocardiogram was performed, which showed diastolic blood flow from the basal interventricular septum into the left ventricular cavity (Fig. 1). This

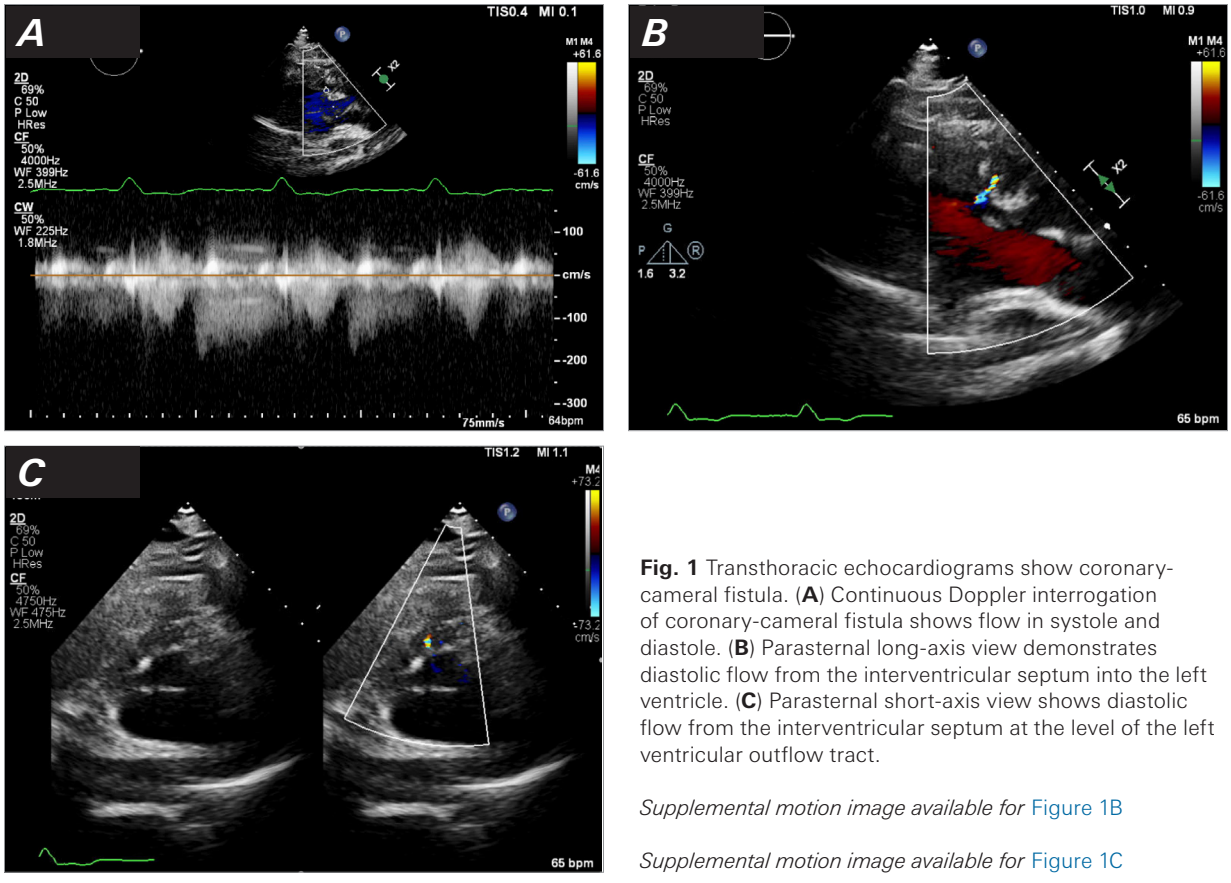

Fig. 1 Transthoracic echocardiograms show coronary-cameral fistula. (**A**) Continuous Doppler interrogation of coronary-cameral fistula shows flow in systole and diastole. (**B**) Parasternal long-axis view demonstrates diastolic flow from the interventricular septum into the left ventricle. (**C**) Parasternal short-axis view shows diastolic flow from the interventricular septum at the level of the left ventricular outflow tract.

Supplemental motion image available for Figure 1B

Supplemental motion image available for Figure 1C

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finding was most consistent with a coronary-cameral fistula between the septal perforator of the left anterior descending coronary artery and the left ventricular cavity in the setting of prior septal myectomy. Because her troponin levels were undetectable, her electrocardiograms showed no ischemia, and her chest pain resolved with famotidine, the coronary-cameral fistula was regarded as an incidental finding rather than a source of myocardial ischemia. She was ultimately discharged with famotidine and close follow-up, and she did not have recurrence of chest pain while taking famotidine.

Comment

Coronary-cameral fistulas are abnormal direct connections between a coronary artery and a cardiac chamber. They are more commonly a result of congenital malformation, but they can arise after chest trauma, infection, or cardiac procedures. Although coronary-cameral fistulas are regarded as rare complications of septal myectomy, case studies have found the incidence of coronary-cameral fistulas after septal myectomy to be as high as 23%, suggesting that they may be underdiagnosed postprocedurally.[1] Smaller fistulas generally produce no symptoms or hemodynamic consequences, but larger fistulas can cause myocardial ischemia secondary to coronary artery steal. A previous study[1] showed that the majority of post–septal myectomy coronary-cameral fistulas resolve spontaneously. A more contemporary study and this featured case suggest they may persist for years after septal myectomy, however.[2]

This case highlights the incidental finding of a coronary-cameral fistula in a patient who underwent septal myectomy for hypertrophic obstructive cardiomyopathy, suggesting that echocardiographic signs of this complication may be subtle and persist for many years.

Supplementary Materials

For supplemental materials, please see the online version of this article.

Article Information

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