Asymptomatic extensive coronary cameral fistulae involving the left ventricle

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A patient with extensive coronary cameral fistulae (CCF) involving the left ventricle (LV) found incidentally during an emergency coronary angiogram is presented. A 68-year-old woman with a history of hypertension was brought to the emergency room with

accelerated anginal symptoms. She was diagnosed with inferior ST segment elevation myocardial infarction, and underwent a coronary angiogram and successful percutaneous intervention to the right coronary artery (RCA). Other than the mid-RCA occlusion, the coronary angiogram was significant for diffuse CCF involving the circumflex-obtuse marginal system and diagonal branches emptying into the LV (Figure 1), delineating the endocardial border very well (Figure 2). After the RCA intervention, the patient remained asymptomatic and was discharged home in stable condition at her excellent baseline functional status.

A coronary artery fistula is an abnormal communication between an epicardial coronary artery and a cardiac chamber (CCF) or a major vessel (venae cavae, pulmonary artery or veins, or coronary sinus). CCF are seen in 0.1% of patients undergoing coronary angiograms. Over 90% of the CCF drain into the venous circulation, and most fistulae are single communications. Although most CCF are asymptomatic, sudden or gradual progression of symptoms has also been reported (1). Surgical repair or transcatheter ablations of the fistulae are recommended for symptomatic patients and for asymptomatic patients who are at risk for future complications such as coronary steals, aneurysms and larger shunts. Our case is very rare because of the asymptomatic clinical course and the presence of multiple LV communications.

REFERENCE

1. Wolf A, Rockson SG. Myocardial ischemia and infarction due to multiple coronary-cameral fistulae: Two case reports and review of the literature. *Cathet Cardiovasc Diagn* 1998;43:179-83.

Figure 1) Coronary angiograms demonstrating extensive coronary cameral fistulae (arrowheads) involving the diagonal branches (A) and circumflex-obtuse marginal system (B)

Figure 2) Coronary angiogram demonstrating extensive coronary cameral fistulae emptying into the left ventricle, delineating the endocardial border (arrowheads)

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