Aorto-left atrial fistula – worsening heart failure after endocarditis of a recently placed prosthetic aortic valve

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A 65-year-old man underwent mechanical aortic valve replacement for severe aortic regurgitation and moderate aortic stenosis causing worsening dyspnea on exertion. The postoperative course was complicated by enterococcal endocarditis requiring eight weeks of antibiotic therapy. Fifteen days after the completion of antibiotic therapy, the patient returned for worsening of dyspnea and marked orthopnea. A transthoracic echocardiogram revealed a periaortic valve abscess (Figure 1). A transesophageal echocardiogram (Figure 2) confirmed the abscess and demonstrated partial filling of the abscess with granulation tissue. It also showed a communication between the abscess and the aorta, as well as an aorto-left atrial fistula with continuous flow

from the aorta to the left atrium in all phases of the cardiac cycle. The present case highlights development of an aorto-atrial fistula from aortic valve surgery and subsequent endocarditis resulting in worsening heart failure despite valve replacement (1). The patient refused surgery and chose treatment with another six weeks of antibiotics, with the expectation that the abscess cavity would continue to fill with granulation tissue and finally close off.

REFERENCE

1. Ananthasubramaniam K. Clinical and echocardiographic features of aorto-atrial fistulas. *Cardiovasc Ultrasound* 2005;3:1.

Figure 1) Transthoracic echocardiogram showing periaortic valve abscess (arrow) in the short-axis view at the level above the aortic valve. Ao Aorta; LA Left atrium; RA Right atrium; RV Right ventricle

Figure 2) Transesophageal echocardiogram confirming a periaortic valve abscess (thick arrow) communicating with the aorta (Ao) and the aorto-left atrial fistula (thin arrow), with continuous aorta-to-atrium flow throughout the cardiac cycle. LA Left atrium

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