Late aorto-left ventricular fistula following aortic valve replacement for infective endocarditis

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A 63-year old female who had undergone aortic valve replacement 4 years ago, due to infective endocarditis with a small peri-annular abscess, developed recurrent heart failure. A work-up revealed an abnormally large cavity beside the sinus of Valsalva with a perianular aortic-left ventricular fistulous communication without current infection.

Figure 1: Three-dimensional reconstructed image of an electrocardiographic-gated multislice computed tomography scan showing a large abnormal cavity (arrow-heads) beside the sinus of Valsalva below the left coronary artery.

Figure 2: Three-dimensional volume-rendering images from the computed tomography scan clearly demonstrate fistulous communication between the sinus of Valsalva and the abnormal cavity (arrow in A). The cavity was widely opened to the left ventricle (B). During the operation, a perianular slit-like fistula was found a small distance from the sewing ring of the prosthesis and closed with bovine pericardium, with reimplantation of the prosthetic valve. The patient’s symptoms resolved completely after surgery. Ao: ascending aorta; LA: left atrium; LV: left ventricle.