Images in Cardiology

This section edited by Edward A. Geiser, M.D.

Giant Left Ventricular Pseudoaneurysm

WILLIAM F. FEARON, M.D., SIDNEY LO, M.D., SIMON STERTZER, M.D.

Cardiovascular Medicine, Stanford University, Stanford, California, USA

FIG. 1 Large, pulsatile mass in left pectoral region.

FIG. 3 Computed tomography scan at the level of T9 showing the large pseudoaneurysm. Arrowhead marks the ostium.

A 54-year-old man presented with the chief complaint of an enlarging pulsatile mass on his chest wall for the preceding 3 months. He had a history of anterior myocardial infarction 19 years previously complicated by left ventricular aneurysm formation, which was resected 8 years prior to admission. Three months prior to presentation, the patient noted a pulsatile mass on his chest, initially the size of a marble, that grew to the size of a softball. The patient sought medical attention and was diagnosed with a "chest wall hernia;" after attempts to reduce the "hernia" failed, a cardiology consultation was obtained.

Physical examination revealed a softball sized mass in the left pectoral region that pulsated with ventricular systole (Fig. 1). There was a III/VI to-and-fro murmur along the left sternal border, which radiated to the mass, and an S3 gallop. The apical four-chamber view of an echocardiogram (Fig. 2), a computed tomography scan at the level of T9 (Fig. 3), and a left

FIG. 2 Apical four-chamber echocardiographic view showing a "fifth chamber," the pseudoaneurysm. Arrowhead marks the ostium of the pseudoaneurysm. LV = left ventricle, P = pseudoaneurysm.

FIG. 4 Left ventriculogram in the RAO projection demonstrates the large pseudoaneurysm. Arrowhead marks the ostium.

ventriculogram in the right anterior oblique projection (Fig. 4) all revealed a $8 \times 8 \times 14$ cm left ventricular pseudoaneurysm. The ostium (arrowhead) measured 3×6 cm at surgery.

The pseudoaneurysm and large amounts of thrombus within it were resected surgically and a bovine pericardial patch was sutured over the defect in the left ventricular wall. The patient has resumed normal activities and was without complaint 6 months later. Left ventricular pseudoaneurysm is a clinically uncommon entity that can be difficult to diagnose. Rupture of a left ventricular pseudoaneurysm is generally fatal, so appropriate recognition and treatment are critical.

Reference

Frances C, Romero A, Grady D: Left ventricular pseudoaneurysm. *J Am Coll Cardiol* 1998;32:557-561