Giant Left Ventricular Pseudoaneurysm as a Complication After Mitral Valve Replacement Surgery

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A 57-year-old woman presented with seizure, exertional shortness of breath (New York Heart Association Class III) and angina-like chest pain. Her cardiac history revealed successful bioprosthetic mitral valve replacement for endocarditis 1 year prior. Chest radiography detected a 9-cm mass overlying the left hilum with an incomplete right border (Fig 1A, arrows). On transthoracic echocardiography, there was a communication from the posterior mitral valve annulus with an apparent left ventricular (LV) pseudoaneurysm (PSA) measuring approximately 51 × 52 mm (Fig 1B). Visualized valves showed thickening of the mitral valve leaflets with adjacent high-density material, likely postsurgical from prior patch repair. Computed tomography angiography (CTA) confirmed the giant LV PSA of 81 × 62 × 41 mm extending off the left ventricle posterolaterally immediately inferior to the mitral valve annulus plane (Fig 2A, B; LA = left atrium).

The most common etiology of LVPA is myocardial infarction; however, the second most common etiology is prior cardiac surgery as in this patient. CTA can provide accurate diagnoses as to the exact location and size of LVPA for surgical planning.

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