

## SUDDEN CARDIAC DEATH IN A YOUNG MAN WITH MASSIVE LEFT VENTRICULAR PSEUDOANEURYSM

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**Introduction:** Left ventricular (LV) pseudoaneurysm (PA) is a known complication of myocardial infarction and rarely, mitral valve (MV) replacement surgery or endocarditis. PAs are prone to rupture with a 50% mortality rate if untreated. We report a case of sudden cardiac death associated with massive, unruptured LVPA complicating prosthetic valve endocarditis.

**Case:** A 28 year-old male with a history of intravenous drug abuse and MV replacement for infective endocarditis presented with signs of congestive heart failure. A transesophageal echocardiogram (TEE) and computed tomography revealed a MV abscess, prosthetic MV insufficiency with vegetations and an extracardiac mass, possibly a LVPA. On day three, he suffered sudden onset of shortness of breath, became unresponsive, and was not resuscitated.

At autopsy, the posterior-inferior surface of the heart was effaced by a massive pericardial mass compressing and displacing the normal cardiac anatomy, but was intact without evidence of rupture. There was no evidence of pulmonary embolism, but the bioprosthesis was completely destroyed. A fistula beneath the MV annulus led into the pericardial space, which contained organized thrombus with areas of fresh blood. Microscopic studies confirmed the diagnosis of LVPA.

**Discussion:** This case illustrates an exceptional example of how the clinical suspicion for cause of death was refuted by pathological evidence and reinforces the need for pathological confirmation despite highly likely clinical suspicions. The clinical team worked closely with the pathology team to determine the potential cause of death, a cooperative endeavor that will desirably be a model for future interactions to improve patient care.