

Perforated Aneurysm of the Posterior Mitral Valve Leaflet

George Dibu, MD; Fawzi Ameer, MD; Mohamed El-Beheary, MD; Dipan Shah, MD

HOUSTON METHODIST DEBAKEY HEART & VASCULAR CENTER, HOUSTON, TEXAS

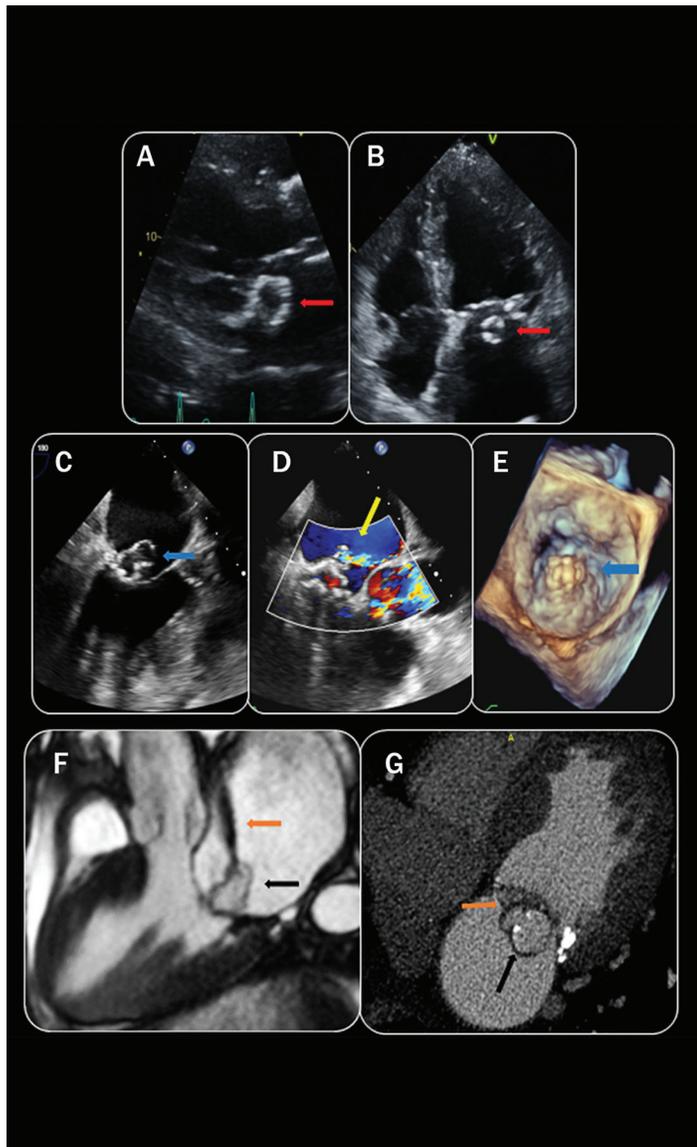


Figure 1.

(A, B) Transthoracic echocardiography images showing a mobile “cystic” structure on the posterior leaflet of the mitral valve (red arrows). (C, D, E) Transesophageal echocardiography images showing perforated mobile cyst-like deformation of the P2 scallop (blue arrow) with anteromedial mitral regurgitation (MR) through the perforation (yellow arrow). (F) Cardiac magnetic resonance imaging and (G) computed tomography showing wind-sock-like aneurysm of the P2 segment of the mitral valve (black arrow) with perforation resulting in severe MR (orange arrow).

An 85-year-old female with a past medical history significant for atrial fibrillation, hypertension, and diabetes mellitus presented to the hospital with worsening shortness of breath. She was found to be in acute heart failure exacerbation and was diuresed. She had a transthoracic echocardiograph showing a mobile “cystic” structure (Figure 1 A, B) on the posterior leaflet of the mitral valve with moderate mitral regurgitation (MR). Subsequent transesophageal echocardiograph (TEE) and 3-dimensional TEE showed a perforated mobile cyst-like deformation on the P2 scallop (Figure 1 C, E) with anteromedially directed MR through the perforation (Figure D). Differential diagnosis included but was not limited to subacute endocarditis. Her blood cultures were negative. Cardiac magnetic resonance imaging (Figure 1 F) and cardiac computed tomography (Figure 1 G) showed a wind-sock like-aneurysm of the P2 segment with perforation, resulting in severe MR. The structural interventional and cardiac surgery teams were consulted to consider transcatheter versus surgical mitral valve replacement/repair.

Corresponding Author:

gdibu@houstonmethodist.org

Conflict of Interest Disclosure:

The authors completed and submitted the *Methodist DeBakey Cardiovascular Journal* Conflict of Interest Statement and none were reported

Keywords:

perforated aneurysm, mitral valve leaflet, mitral regurgitation