

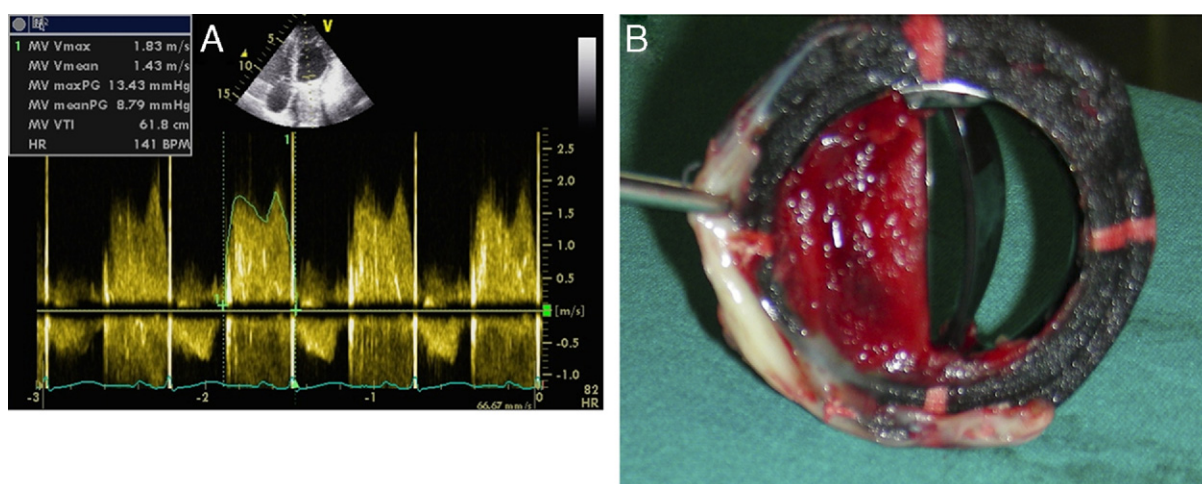
IMAGES IN CARDIOLOGY

Thrombotic Obstruction of Mechanical Prosthetic Valve in Mitral Position

The Old “X-Ray” Fights the New 3-Dimensional Transesophageal Echocardiography

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A 34-year-old man with recent mitral valve replacement (Sorin Bicarbon prosthesis, Milan, Italy) was referred as the result of an abnormal color flow signal localized in only 1 hemi-disc with a significantly increased gradient across the prosthesis during routine transthoracic echocardiography (A). He was asymptomatic, and oral anticoagulation was not adequate.

Both 2-dimensional transesophageal echocardiography (Online Video 1) and chest x-ray film (Online Video 2) confirmed the hypothesis of a stuck leaflet in the closed position. Three-dimensional transesophageal echocardiography (3D-TEE) clearly showed the presence of a pannus overgrowth on the prosthesis leaflet (Online Video 3) that was surgically confirmed (B).

Both cineangiography and 3D-TEE have proved successful in diagnosing the presence of prosthesis dysfunction. The “old” x-ray method is quick, effective, and readily available. The “new” 3D-TEE offers a unique opportunity to visualize the atrial side of prostheses with an en face view, but its extensive use is still limited by the lower availability and reproducibility.