

Incremental Value Of 3D Transesophageal Echocardiography For The Assessment of Mitral Valve Prolapse

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A 90-year-old asymptomatic patient with atrial fibrillation underwent a transesophageal echocardiography (TEE) for the assessment of thrombus. The TEE examination evidenced mitral valve anterior leaflet prolapse with moderate to severe eccentric regurgitation. Three-dimensional (3D)-TEE was

performed and showed chordal rupture (A2) related to the anterior scallop of the mitral valve (Figure 1 e video 1). In this case, 3D-TEE provided additional anatomical information regarding the mitral valve, allowing the diagnosis of flail leaflet and chordal rupture, not assessed by the 2D evaluation.



Figure 1 – 2D-TEE, four-chamber view showing mitral valve prolapse at 0° (A) e 34° (B) rotation of imaging array. C and D. 2D TEE color flow mapping evidencing eccentric mitral regurgitation, directed posteriorly at 0° (C) and 138° (D) rotation of imaging array. E and F. 3D-TEE images showing the mitral valve prolapse of the anterior leaflet (A2) (E, arrow), in a surgical view (from the left atrium, LA) and chordal rupture (F, arrow). TEE: transesophageal echocardiography; RA: right atrium; RV: right ventricle; LV: left ventricle; AO: aorta.

Keywords

Echocardiography, Transesophageal / utilization; Echocardiography, Three Dimensional / utilization; Mitral Valve Prolapse.

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Video 1 – Additional Supporting Information: Real time 3D TEE cine loops evidence chordal rupture (A2) associated with mitral valve prolapse.