

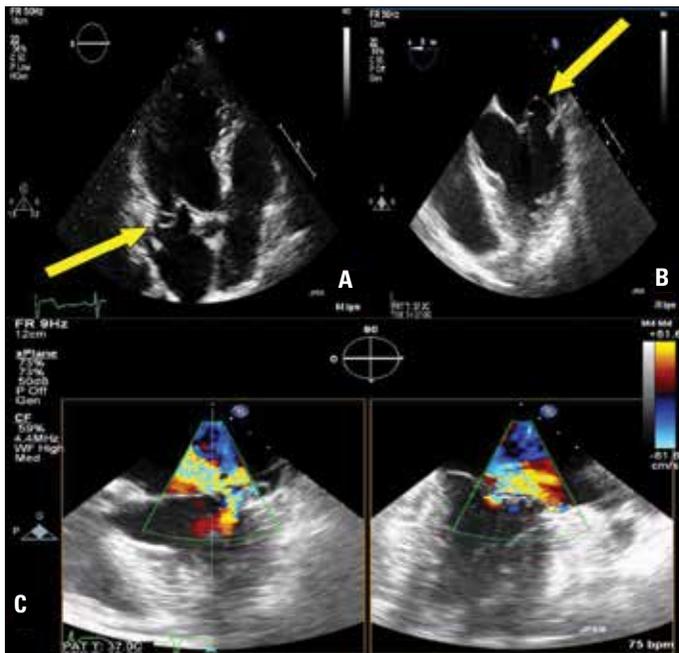
## An adult patient with the ruptured aneurysm of mitral valve posterior leaflet

*Posteriyor mitral kapak anevrizma rüptürü olan bir yetişkin hasta*

A 34-year-old man was admitted to our hospital with exertional dyspnea. Past medical history was significant for asymptomatic mitral valve prolapse, moderate mitral regurgitation and chordae tendinea rupture diagnosed two years previously. He had no history of palpitation or fever. Physical examination revealed apical 3/6 grade systolic murmur. Electrocardiography was in normal sinus rhythm. 2D and 3D transthoracic echocardiography (TTE) showed that left ventricular ejection fraction was 67%, left heart chambers were dilated and a saccular aneurysm bulging towards the left atrium at the posterior mitral leaflet. In color Doppler examination, there was a regurgitant flow across the aneurysm, suggesting rupture. (Fig. 1A and Video 1. See corresponding video/movie images at [www.anakarder.com](http://www.anakarder.com)) There was no evidence of infective endocarditis. Real-time three-dimensional transesophageal echocardiography (RT3D TEE) confirmed the TTE findings. In addition, it revealed the bulging into the left atrium was in both systole and diastole, confirming the diagnosis of aneurysm instead of prolapsus. (Fig. 1B, C, 2A, B, 3A, B and Video 2, 3, 4. See corresponding video/movie images at [www.anakarder.com](http://www.anakarder.com)). The patient was scheduled to elective surgical operation.

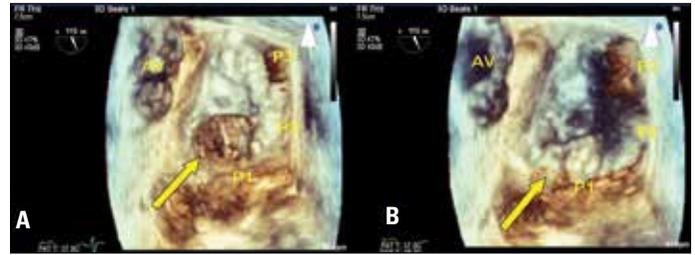
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**Video 1.** Apical four chamber window of TTE shows saccular aneurysm of mitral valve  
TTE - transthoracic echocardiography



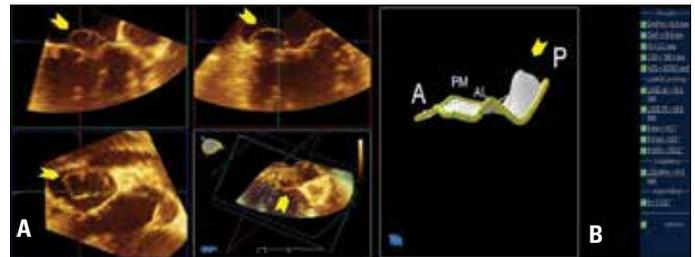
**Figure 1. A)** Apical four chamber window of TTE showing saccular aneurysm of mitral valve (arrow), **B)** TEE showing posterior mitral valve aneurysm. **C)** Transesophageal biplane color-Doppler images showing severe eccentric mitral regurgitation

TTE - transthoracic echocardiography, TEE - transesophageal echocardiography



**Figure 2. A)** RT3D TEE showing the aneurysmal P1 segment (yellow arrow) during systole. **B)** RT3D TEE showing the aneurysmal P1 segment (yellow arrow) during diastole. Note that bulging towards left atrium is present both in systole and diastole. This finding is important for differentiation aneurysm from prolapse, in which bulging is present only during systole

RT3D - real-time 3-dimensional, TEE - transesophageal echocardiography



**Figure 3. A)** The postprocessing analysis of the reconstructed three dimensional images. The image with green frame showing posterior mitral valve aneurysm. (yellow arrowhead) The image with red frame is orthogonal to the image with green frame, showing similar findings. **B)** The postprocessing analysis of the reconstructed three dimensional images. (MVQ) The image showing posterior mitral valve aneurysm

**Video 2.** TEE (0° angle at midesophageal level) shows posterior mitral valve aneurysm

TEE - transesophageal echocardiography

**Video 3.** Biplane views during TEE of the mitral valve with color flow Doppler shows severe eccentric mitral regurgitation

TEE - transesophageal echocardiography

**Video 4.** RT3D TEE showing the aneurysmal P1 segment during systole and diastole

RT3D - real-time 3-dimensional, TEE - transesophageal echocardiography

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## Structural failure of a left atrial appendage occluder device

*Sol atriyal apendiks kapatma sistemindeki yapısal bozukluk*

Structural failure of left atrial appendage (LAA) occluder devices is rarely reported. An 81-year old female patient was implanted with a