

Flail Mitral Leaflet

Clinical Case Portal

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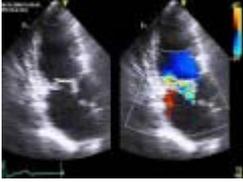
Case Report

A 56-year-old male patient was referred to the Department of Cardiology from the district hospital, where he was hospitalized because of severe dyspnea at rest 7 days prior to admission. On admission the patient complained of mild exertion induced dyspnea. The physical examination revealed atrial fibrillation, holosystolic murmur with early diastolic murmur and moist rales heard over the lung bases. The arterial blood pressure was 130/50 mmHg. The patient underwent transthoracic echocardiographic examination (TTE), which showed flail mitral leaflet with significant mitral regurgitation (Video 1), dilatation of left ventricle, left atrium and aortic root with moderate aortic regurgitation. There was also a mild tricuspid regurgitation - based on its maximum pressure gradient and the diameter of inferior vena cava the systolic pulmonary pressure was assessed to be 50 mmHg. Subsequently the patient underwent real-time three-dimensional (3D) TTE (Video 2, Video 3, Video 4). In patients with valvular heart disease 3D echocardiography facilitates viewing dynamic reconstructions of the analyzed valves from any given angle. And thus, “electronic left ventriculotomy” enables visualization of mitral or aortic valve as they would have been seen by cardiothoracic surgeon sectioning the left ventricle, whereas “electronic atriotomy” facilitates viewing dynamic reconstruction of mitral or tricuspid valve from the atrial cavity. A detailed qualitative analysis of leaflets morphology and mobility may be performed on the basis of information combined from those different views. As demonstrated in

this patient, when mitral valve with flail leaflet is viewed from the atrial side, a bulging of the prolapsing leaflet into the left atrium occurs during ventricular systole. Thus, 3D images allow exact identification and sizing of the prolapsing scallops.

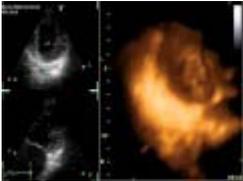
Video 1 :

[Flail segment of posterior mitral leaflet](#)



Video 2 :

[View of the mitral valve from the left atrium](#)



Video 3 :

[View of the mitral valve from the left atrium](#)



Video 4 :

[View of the mitral valve from the left ventricle](#)

