

Görüntülü olgu örnekleri

Case images

Evaluation of early dysfunction of a prosthetic mitral valve by real-time 3D transesophageal echocardiography

Gerçek zamanlı 3D transözefageal ekokardiyografi ile bir protez mitral kapakta erken işlev bozukluğunun değerlendirilmesi

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The patient is a 46 year-old male with a prosthetic mitral valve replacement (St Jude, No: 29) who presented four months prior with an acute dyspnea. His INR was 1.7 upon presentation. Transthoracic echocardiography revealed a mean diastolic transmitral gradient of

8.5 mmHg and an effective orifice area of 1.3 cm²/m². Two-dimensional transesophageal echocardiography (2D TEE) demonstrated restriction in anterior leaflet movement and a mobile thrombus image (1.3x1.0 cm) attached to the ventricular face of the posterior mitral leaflet (Fig. A). In support of the 2D TEE findings, real-time three-dimensional (3D) TEE (iE 33 ultrasound, Philips Medical Systems) demonstrated a prosthetic anterior mitral leaflet stuck in a closed position and a mobile thrombus attached to the posterior mitral leaflet, which replaced from the left ventricular face to the atrial face in every diastole (Fig. B). The patient underwent another operation, and we observed that the stuck anterior leaflet was caused by a discrete subvalvular tissue that was interfering with the prosthetic mechanism. In addition, we observed a mobile thrombus attached to the posterior leaflet, which also caused obstruction (Fig. C). In this case, 3D TEE was used as novel cardiac imaging which was a useful tool that provided unique views that are comparable with surgical views.

Figures– (A) Two-dimensional transesophageal echocardiography demonstrated restriction in anterior leaflet movement and a mobile thrombus image (1.3x1.0 cm) attached to the ventricular face of the posterior mitral leaflet. (B) Real-time three-dimensional TEE images of a prosthetic anterior mitral leaflet stuck in the closed position and a mobile thrombus attached to the posterior mitral leaflet. (C) Operation views of the prosthetic mitral valve, with a stuck anterior leaflet and thrombus.

