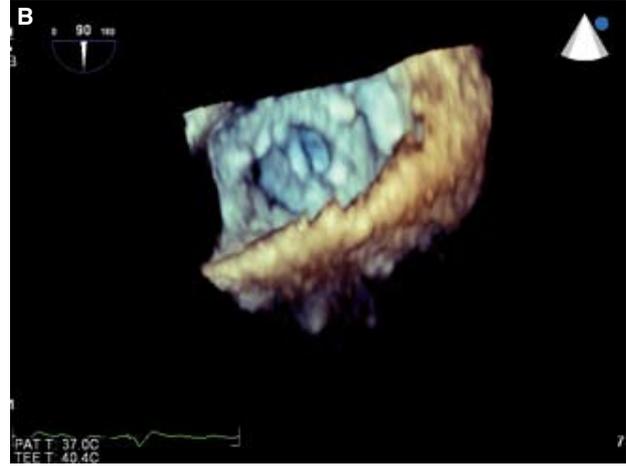
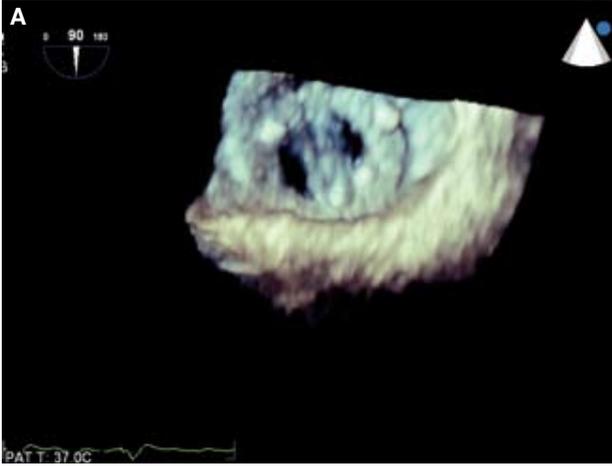


## Real-time three-dimensional transesophageal echocardiography in the assessment of tricuspid mechanical prosthetic valve

## Triküspit mekanik protez kapağın değerlendirilmesinde gerçek zamanlı üçboyutlu transözofageal ekokardiyografi

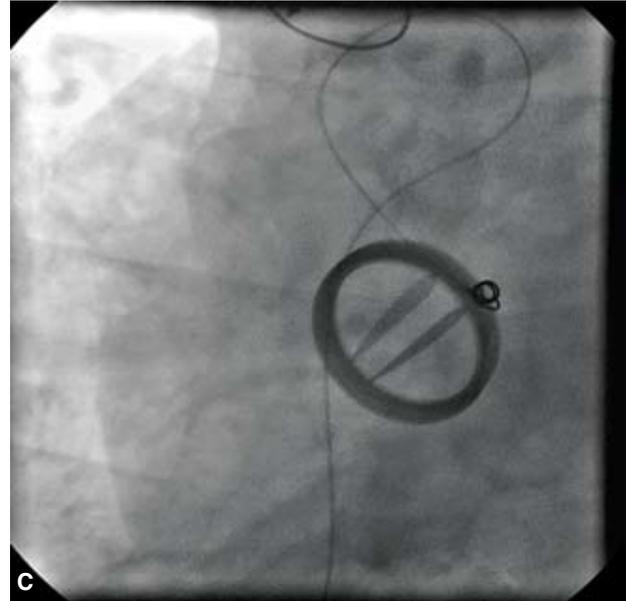


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A 70-year-old man was re-admitted to our hospital with a suspicion of mechanical heart valve thrombosis after isolated tricuspid valve replacement with a St. Jude mechanical prosthetic valve. He also had a previous history of prosthetic heart valve thrombosis which was successfully treated with 25 mg t-PA. He was on regular control for international normalized ratio (INR). Transthoracic Doppler echocardiography showed that the tricuspid mechanical prosthetic valve was normal in function (tricuspid valve area 1.9 cm<sup>2</sup>, mean gradient 4 mmHg). Conventional two-dimensional transesophageal echocardiography (TEE) was not able to clearly demonstrate the motion of the hemidisks of the tricuspid mechanical valve. However, real-time three-dimensional TEE enabled us to visualize the tricuspid valve movement. Despite a recent suggestion that three-dimensional TEE is more useful for the visualization of prosthetic mitral valve and valve apparatus compared to aortic and tricuspid

valve prostheses because of the longer distance to the transducer and the oblique angle of the ultrasound beam, we were able to visualize mechanical tricuspid valve motion without any limitation (Figure A, B, Video file 1), which was comparable to fluoroscopic evaluation (Figure C, Video file 2).



**Figures.** Volume-rendered views of the tricuspid mechanical prosthetic valve by real-time three-dimensional transesophageal echocardiography: (A) Normally opened and (B) closed positions. (C) Fluoroscopic view of the bileaflet prosthetic tricuspid valve when normally opened. *Video files are available online at the site of the presentation.*