

## Visualization of the geometric profile of the septal occluder by real-time 3D transesophageal echocardiography after closure of an atrial septal defect

Mehmet Ali Astarciöğlü  
Mustafa Yıldız  
Nilüfer Ekşi Duran  
Mehmet Özkan

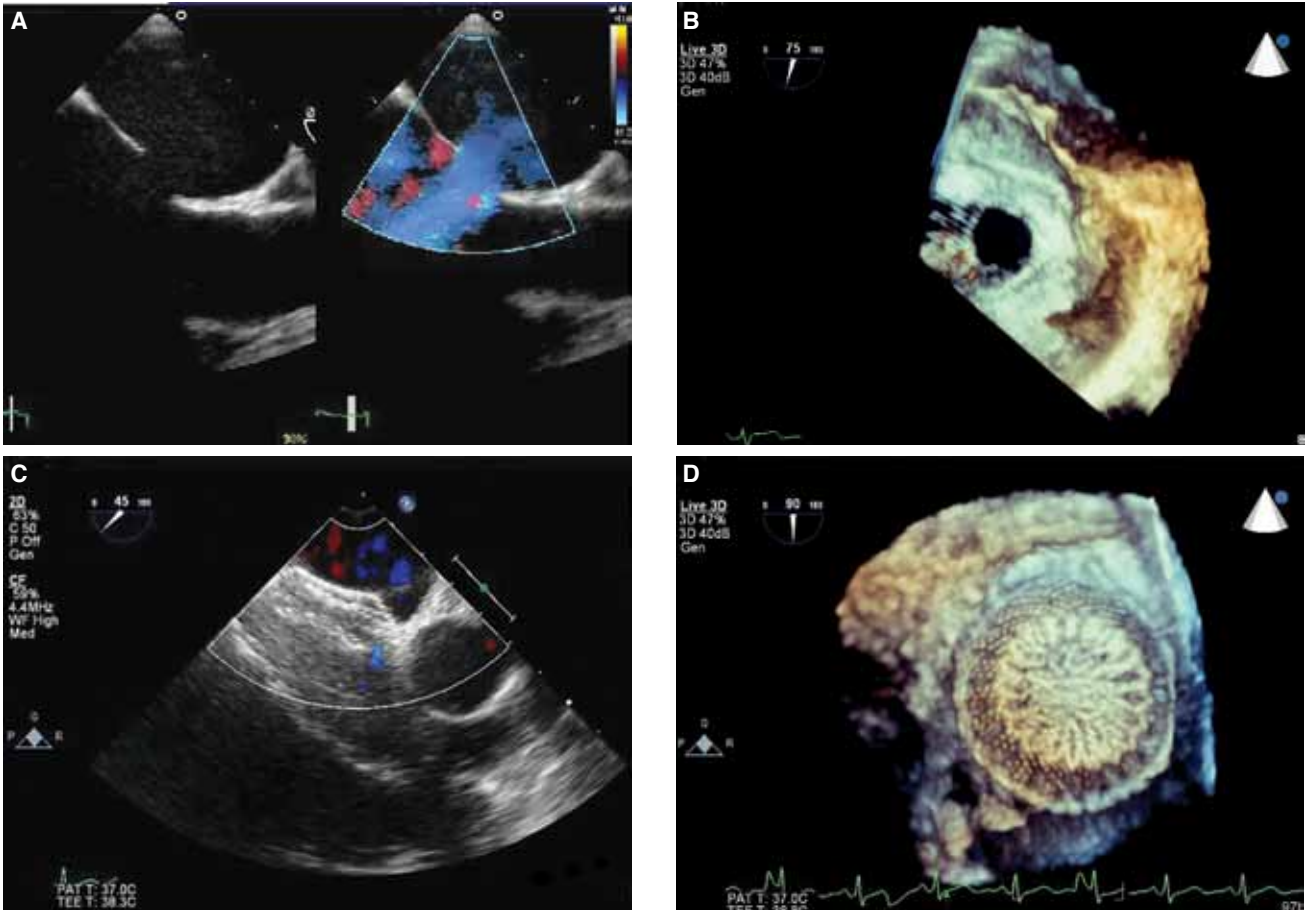
Department of  
Cardiology, Kartal  
Koşuyolu Heart and  
Research Hospital,  
İstanbul

A 30-year-old woman was admitted to our center for evaluation of moderate dyspnea on exertion of one-year history. Cardiac auscultation disclosed a fixed splitting of the second heart sound and the electrocardiogram showed right bundle branch block. Two-dimensional transesophageal echocardiography (TEE) revealed a typical secundum type atrial septal defect (ASD) and color flow imaging showed a

central jet through the atrial septum (Fig. A). Three-dimensional TEE provided superior imaging, demonstrating the shape and the surrounding structures of the ASD in a single view, and the spatial relationship of the ASD anatomy (Fig. B). The patient underwent successful transcatheter closure of the 16-mm defect with an Occlutech Figulla ASD occluder. The geometric profile and septal shape of the occluder were visualized after device closure. The *en face* appearance and edges of the disc from both the right and left atrial surfaces in spatial reality were imaged directly and sharply by real-time three-dimensional TEE (Fig. C, D). Three-dimensional views by multiplane TEE allow a realistic *in vivo* description of atrial septal occluders.

## Atrial septal defektin onarımı sonrasında septal tıkaçıcının geometrik profilinin gerçek zamanlı üçboyutlu transözofageal ekokardiyografi ile gösterilmesi

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**Figures.** (A) Transesophageal echocardiogram demonstrates a secundum atrial septal defect and left-to-right shunting is confirmed with color flow imaging. (B) The shape of the atrial septal defect by three-dimensional transesophageal echocardiography. (C) The Occlutech Figulla septal device is seen on the transverse plane image at the level of the atrial septum. (D) The appearance of the device from the left atrium with its concave shape in the left atrial cavity.