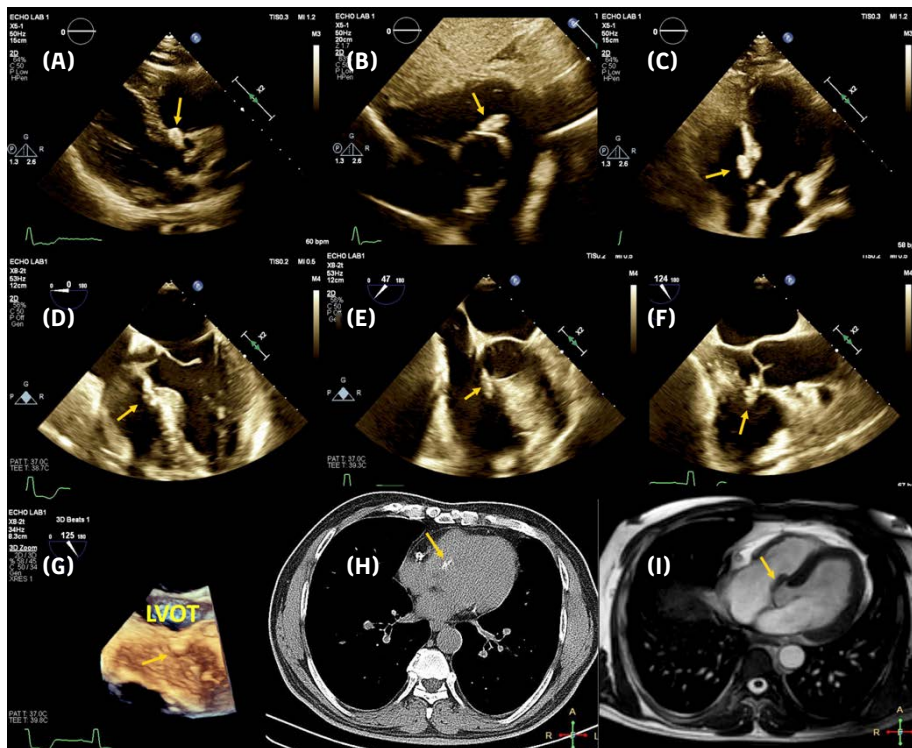


## Incidentally Detected Membranous Interventricular Septal Aneurysm Resembling a Ventricular Septal Defect Occluder Device

### Ventriküler Septal Defekt Oklüder Cihazına Benzeyen, Tesadüfen Tespit Edilen Membranöz Interventriküler Septal Anevrizma

A 57-year-old man was admitted to the emergency department with a diagnosis of unstable angina. Initial transthoracic echocardiography (TTE) detected a ventricular septal defect occluder device-like (VSDOD) image at the interventricular septum (IVS). However, the patient denied any history of device implantation. Coronary angiography revealed triple-vessel coronary artery disease, but the VSDOD was not observed.

### CASE IMAGE OLGU GÖRÜNTÜSÜ



**Figure 1.** Densely fibrotic and/or calcified basal membrane aneurysmal septum, resembling a ventricular septal closing device (arrow) on transthoracic echocardiography views: (A) parasternal long-axis view, (B) subcostal short-axis view, (C) modified apical four-chamber view; and transesophageal echocardiography views: (D) modified upper esophageal five-chamber view, (E) modified short-axis of the aortic valve, (F) modified long-axis view of the aortic valve. (G) En face view of the densely fibrotic or calcified basal membranous aneurysmal septum (arrow) from the right ventricular side on three-dimensional transesophageal echocardiography in zoom mode. (H) Calcification in the middle of the heart (arrow) on chest computed tomography. (I) Cardiac magnetic resonance imaging identified an aneurysm of the basal interventricular septum with focal thickening and low signal intensity consistent with calcification (arrow), which was initially mistaken for a ventricular septal defect occluder on echocardiography.

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Repeat TTE and transesophageal echocardiography (TEE) showed a well-defined, non-mobile, highly echogenic mass in the shape of two disks, attached to the right ventricular (RV) side of the IVS base, resembling an Amplatzer VSDOD (Figure 1A–G, Videos 1 and 2). Due to suboptimal TTE views and artifacts such as shadowing and reverberation on TEE, visualization of all parts of the interventricular septal aneurysm (IVSA) was limited, especially in the four-chamber view. Review of the chest computed tomography scan revealed calcification in the middle of the heart (Figure 1H). Cardiac magnetic resonance imaging (CMR) identified a basal membranous IVS aneurysm (20 × 9 mm) with focal areas of thickened tissue showing low signal intensity consistent with calcification (13 mm of the IVSA wall) (Figure 1I, Video 3). The Heart Team decided that only coronary artery bypass grafting should be performed. Written informed consent was obtained from the patient. In conclusion, one echocardiographic presentation of IVSA may be a calcified mass, and additional imaging modalities help to accurately identify the underlying pathology. This case also highlights the importance of standardized medical records.

**Ethics Committee Approval:** This is a case image, and therefore ethics committee approval was not required in accordance with institutional policies.

**Informed Consent:** Written informed consent was obtained from the patient.

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**Video 1.** Transthoracic echocardiography demonstrating a well-defined, highly echogenic, disk-shaped mass resembling a ventricular septal closing device at the base of the interventricular septum.

**Video 2.** Transesophageal echocardiography revealing a well-defined, highly echogenic, disk-shaped mass resembling a ventricular septal closing device at the base of the interventricular septum.

**Video 3.** Cardiac magnetic resonance imaging demonstrating an aneurysm of the basal interventricular septum with focal areas of thickening and low signal intensity indicative of calcification, initially misdiagnosed as a ventricular septal defect occluder on echocardiography.