

A rare manifestation of a known entity: Giant interatrial septal aneurysm

Bilinenin nadir görüleni: Dev interatriyal septal anevrizma

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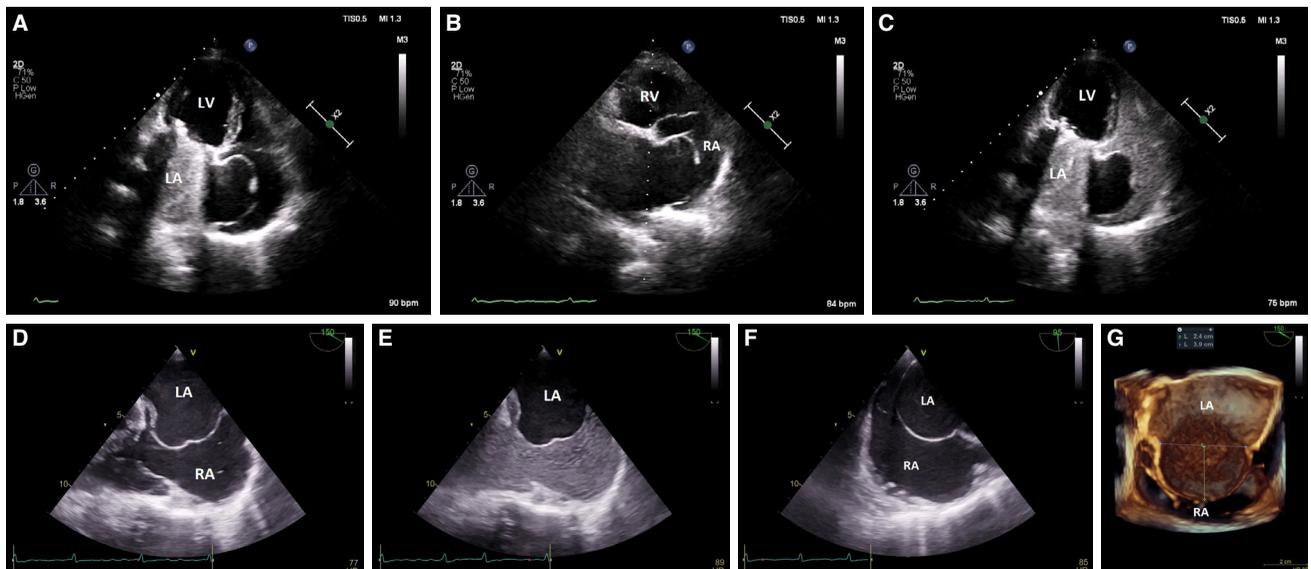
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A 53-year-old woman was admitted to the inpatient clinic for a routine cardiology examination. She had undergone mitral valve replacement and tricuspid annuloplasty for rheumatic valve disease 11 years earlier, and her medical history included hypertension and persistent atrial fibrillation (AF). The examination revealed a blood pressure of 110/70 mmHg, a heart rate of 76 beats/minute with an irregular pulse, and a mechanical S1 sound was heard. The electrocardiogram results were consistent with AF and a plain chest X-ray was unremarkable. A routine annual transthoracic echocardiographic examination showed a normally functioning mechanical prosthesis in the mitral location with normal biventricular function and enlarged atria. During the examination, it was noted that the interatrial septum was unusually large, aneurysmatic, and bowed toward the right atrium. Color Doppler interrogation of the atrial septum did not

demonstrate any flow through the septum; similarly, an agitated saline study did not reveal shunting in either direction (Fig. A-C, Video 1*). To further visualize the septum and to rule out any septal defects, 2-dimensional and real-time 3-dimensional transesophageal echocardiography (TEE) studies were performed. The TEE showed grossly similar findings, with a huge atrial septal aneurysm (ASA) that measured 39 mm in width with no apparent defects. Intense (3+) spontaneous echo contrast into the left atrium was also observed (Fig. D-G, Video 2*). The defect was confined to the primary septum, with no extension to the secondary septum. A review of prior echocardiograms suggested that the patient had a small ASA even before the mitral replacement surgery. Apparently, the ASA enlarged in the following years, possibly due to remodeling of the atrial septum, but the exact cause remains elusive.

An ASA is a localized protrusion of the septal tissue toward either the right atrium, left atrium, or both atria. While specific definitions differ, there should be at least a 10-mm protrusion toward either atrium as measured from the normal septal plane. This huge ASA demonstrates the extent to which an atrial septum can expand.



Figures– Transthoracic echocardiography showing a giant atrial septal aneurysm from the (A) apical 4-chamber and (B) modified apical 4-chamber views. (C) Agitated saline injection did not illustrate any shunt through the interatrial septum. (D-F) Two-dimensional and (G) real-time 3-dimensional transesophageal echocardiographic images of the same aneurysm seen in Figure A-C. Again, no shunt was observed during contrast study. *Supplementary video files associated with this presentation can be found in the online version of the journal.