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CASE IMAGE

Acquired pseudoaneurysm of the sinus of Valsalva

Sinüs Valsalva'nın kazanılmış psödoanevrizması

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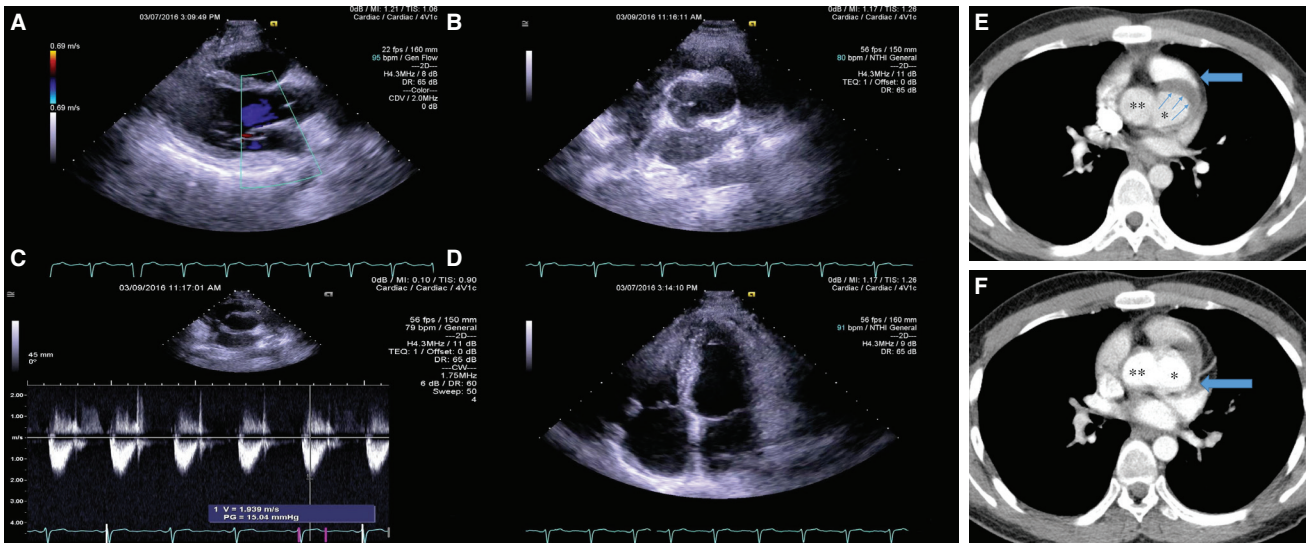
A 23-year-old male patient presented at the emergency department with complaints of atypical chest pain and palpitations. He had a history of blunt chest trauma in a car accident 1 year previously. He did not have a Marfanoid patient phenotype. A pseudoaneurysm of the sinus of Valsalva near the left coronary cusp was detected on transthoracic echocardiography (Figure A-D) (Video 1, 2*). As a result of the decrease in blood flow velocity in the cavity of the pseudoaneurysm, there was blood stasis and a thrombus formation on the inner wall of the pseudoaneurysm. Thoracic computerized tomography revealed relationship of the pseudoaneurysm to the main pulmonary artery and the left main coronary artery (Figure E, F). No aortic valve dysfunction was observed and remaining parts of the aorta were normal anatomically. It was thought that the severe blunt chest trauma was the most likely cause of the pseudoaneurysm formation. Direct, blunt chest trauma may cause sudden increase in pressure and intimal rupture in the aortic root during the diastolic phase of the cardiac cycle when the aortic valve is closed. Due to the high risk of pseudoaneurysm rupture, surgical repair of the aortic root was recommended. Successful surgical repair of the pseudoaneurysm with preservation of the native aortic valve was performed. The patient was discharged without any complication and made a complete return to his daily life.



Figures– (A) Parasternal long axis view of transthoracic echocardiography was normal in the general aspect. There was no aortic valve regurgitation observed and other structures were normal anatomically (Video 1*). **(B)** Parasternal short axis view offered the most distinct visualization of the pseudoaneurysm formation. Thrombosed pseudoaneurysm can be clearly distinguished from the aortic root. The shape of the pseudoaneurysm and the aortic root together resembles binoculars. **(C)** Doppler flow of parasternal short axis view of transthoracic echocardiography revealed mild pulmonary valve gradient increase. This gradient increase was related to the mass effect of the pseudoaneurysm on the main pulmonary artery. **(D)** Apical 4-chamber view revealed nothing abnormal anatomically. Cardiac chambers were within normal size range. **(E)** Horizontal view of thoracic computerized tomography illustrating the contained, thrombosed pseudoaneurysm (single asterisk) and aortic root (double asterisk). Pseudoaneurysm was near the left coronary cusp. Thrombosed part of the inner wall of the pseudoaneurysm is visible (thin blue arrows). Main pulmonary artery was compressed by the pseudoaneurysm (thick blue arrow). **(F)** Relationship of the pseudoaneurysm to the left main coronary artery (thick blue arrow) in horizontal view of thoracic computerized tomography. **Supplementary video files associated with this presentation can be found in the online version of the journal.*