

Left ventricular pseudoaneurysm as a silent complication of non-ST segment elevation myocardial infarction

ST segment yükselmesiz miyokart enfarktüsünün sessiz bir komplikasyonu olan sol ventrikül psödoanevrizması

İbrahim Yıldız¹Pinar Özmen Yıldız¹İsmail Gürbak³Bülent Kaya²

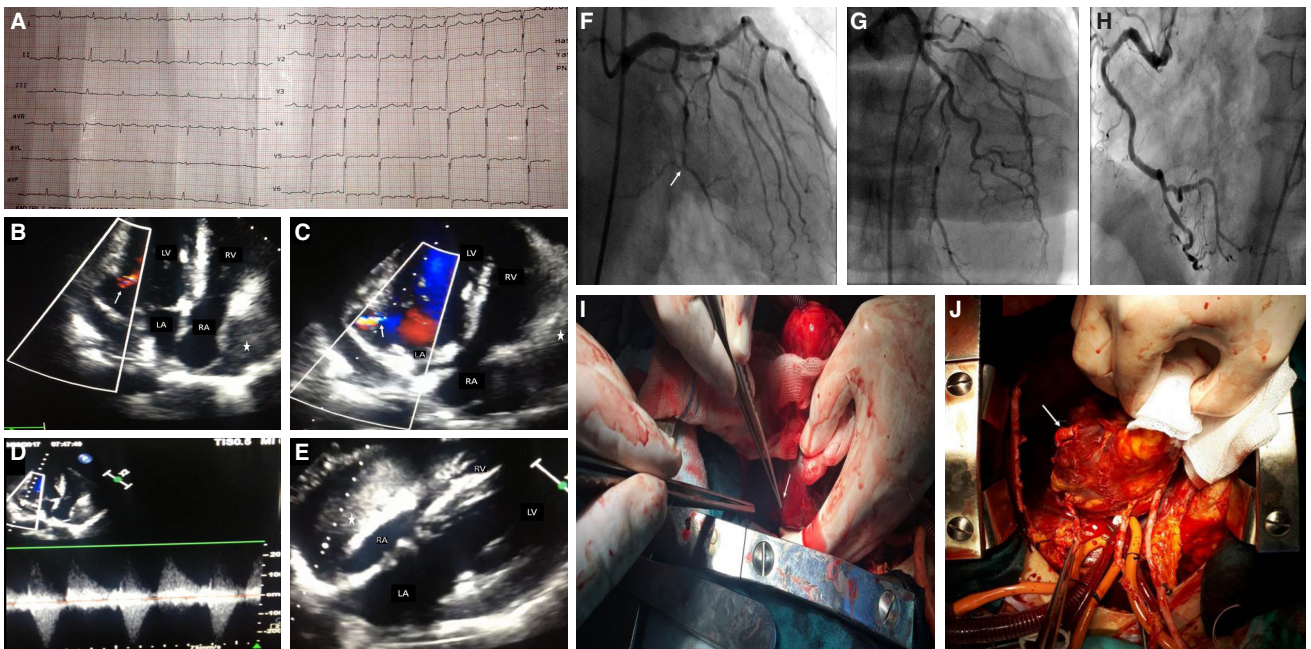
¹Department of Cardiology, Osmaniye State Hospital, Osmaniye, Turkey

²Department of Nephrology, Osmaniye State Hospital, Osmaniye, Turkey

³Department of Cardiology, Mehmet Akif Ersoy Thoracic and Cardiovascular Surgery Training and Research Hospital, İstanbul, Turkey

A 77-year-old male without any previous history of cardiovascular disease was admitted to the emergency room with the complaints of chest pain and nausea. His vital signs indicated a regular pulse rate of 90 bpm and blood pressure of 110/70 mmHg. The physical examination was unremarkable. A cardiac panel demonstrated mildly elevated troponin T (122.4 pg/mL; normal range: 0-14 pg/mL) and normal creatine kinase-MB levels (1.7 ng/mL; normal range: 0-6.22 ng/mL). An electrocardiogram

showed sinus rhythm with slight ST-T wave changes (Figure A). Echocardiography demonstrated basal, posterolateral myocardial wall akinesis, an abnormal blood leak across the basal, posterolateral wall suggesting a left ventricular pseudoaneurysm on color and continuous wave Doppler evaluation, and additional, moderate pericardial effusion, which was more pronounced in the right side of the heart (Figure B-E, Video 1, 2*). Coronary angiography showed significant stenosis of the left anterior descending artery and total occlusion at the mid portion of the circumflex artery (Figure F-H). No significant obstruction was found in the right coronary artery. These findings strongly suggested the diagnosis of a left ventricular pseudoaneurysm, probably due to non-ST segment elevation myocardial infarction. Surgery confirmed the diagnosis and allowed for the repair of the myocardial pseudoaneurysm and coronary artery bypass grafting (Figure I, J).



Figures- (A) Electrocardiogram revealed negative t-waves in leads I, II, III, aVF, and V6, as well as slight ST-segment depression in leads V3-V6. (B-D) Modified apical 4-chamber view with color and continuous wave Doppler suggested blood flow across the basal, posterolateral myocardial wall (arrow). (E) Moderate pericardial effusion (star) can be seen in the subcostal view. LA: Left atrium; LV: left ventricle; RA: right atrium; RV: right ventricle. (F-H) Coronary angiography showed total occlusion at the mid portion of the circumflex artery to be the culprit lesion (arrow). (I, J) Intraoperative photograph illustrating a myocardial pseudoaneurysm in the basal, posterolateral wall (at the tip of the forceps) and surgical repair of the myocardial pseudoaneurysm (arrow).

*Supplementary video files associated with this presentation can be found in the online version of the journal.