CASE IMAGE

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

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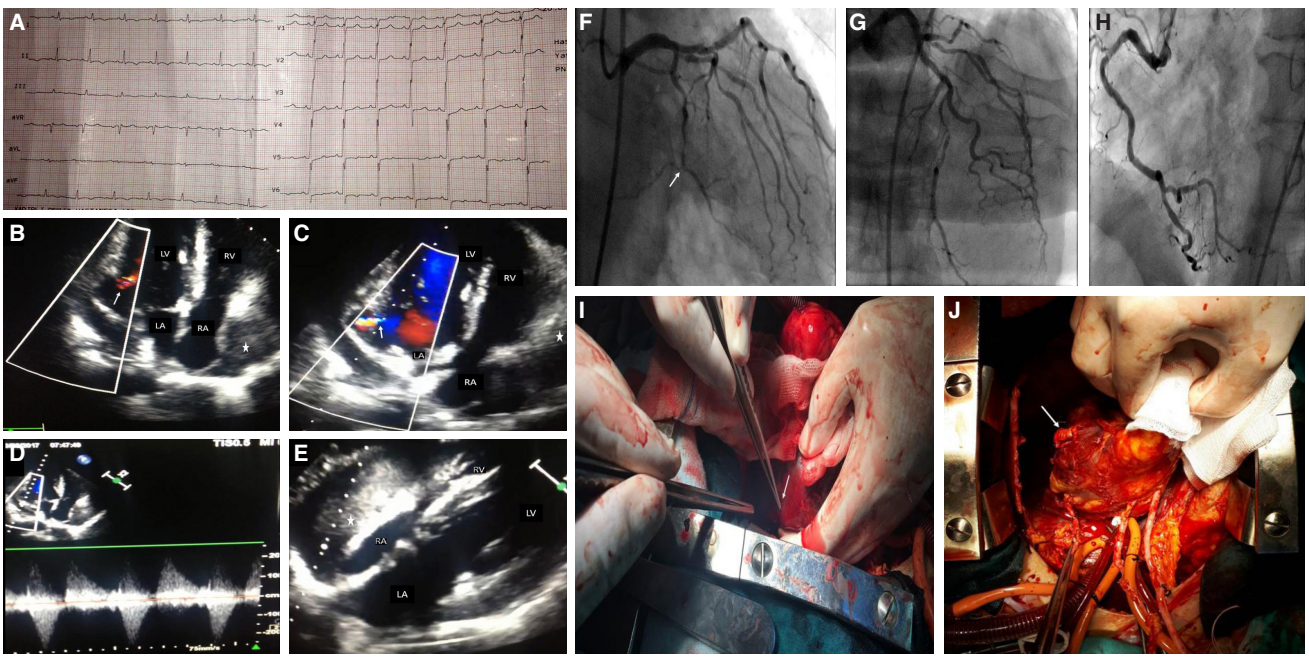
A 77-year-old male without any previous history of cardiovascular disease was admitted to the emergency room with the complaints of chest pain and nausea. His vital signs indicated a regular pulse rate of 90 bpm and blood pressure of 110/70 mmHg. The physical examination was unremarkable. A cardiac panel 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.