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EC CARDIOLOGY
Mini Case Study

A Silent but Impressive Left Ventricular Pseudoaneurysm: A Case Report

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Abstract

An asymptomatic 56-years-old male with a history of a surgical treatment of an ischemic ventricular septal defect was referred for a multimodality imaging evaluation.

Post-operative computed tomography (CT) revealed the presence of a pseudoaneurysm (62*62 mm) originating from left ventricular (LV) inferior wall. The patient was then lost to follow-up.

Multimodality imaging confirmed a huge pseudoaneurysm developed at the expense of an inferior transmural necrosis and helped to evaluate measurement and anatomical relationships to surrounding structures.

The patient underwent a successful surgery with a prosthetic patch closure of the defect reinforced with pledged sutures.

Keywords: *Left Ventricular Pseudoaneurysm; Multimodality Imaging Evaluation*

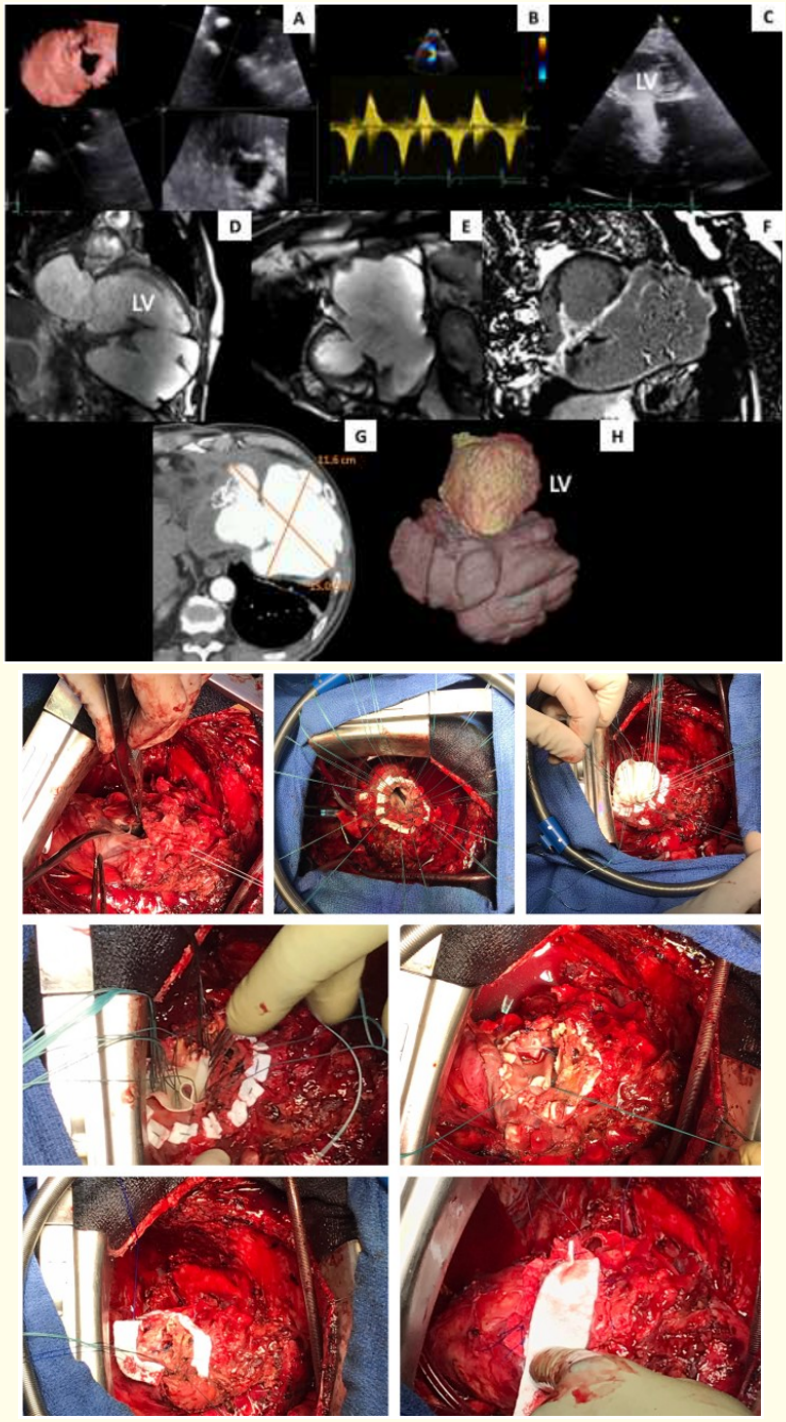
An asymptomatic 56-years-old male with a history of an ischemic cardiomyopathy (ICM) was referred for a multimodality imaging evaluation. Two years ago, the patient had benefited from a surgical treatment of an ischemic ventricular septal defect (VSD) in the immediate aftermath of an inferior myocardial infarction. Post-operative computed tomography (CT) revealed the presence of a pseudoaneurysm (62*62 mm) originating from left ventricular (LV) inferior wall. The patient was then lost to follow-up.

The current TTE evaluation disclosed a LV dilatation with a thinned and akinetic inferior wall and an impaired left ventricular systolic function (LVEF 37%). Parasternal short axis view allowed visualization of a giant saccular outpouching with a characteristic narrow neck (Panel A) and a bi-directional shunt flow on doppler (Panel B). An intravenous contrast agent (SonoVue®) demonstrated a systolic contrast filling of the pseudoaneurysm (Panel C).

Cardiac magnetic resonance (CMR; 1.5 Tesla) confirmed severe LV dilatation (170 ml/m^2), impaired LV function (LVEF 35%) and a huge pseudoaneurysm developed at the expense of an inferior transmural necrosis (Panel D and E). Late T1 gadolinium enhancement (LGE) imaging displayed significant myocardial scarring (35% LV) and enhancement of the pericardium containing the pseudoaneurysm (Panel F). No residual VSD shunt was detected.

Cardiac CT angiography allowed accurate measurement of the contrast-filled pseudoaneurysm (150*116 mm) and its neck (28 mm) and helped to evaluate anatomical relationships to surrounding structures (Panel G and H).

The patient underwent a successful surgery with a prosthetic patch closure of the defect reinforced with pledged sutures.



Conclusion

This case enhance the importance of regular follow-up with multimodality imaging.

Conflicts of Interest

Nothing to disclose.

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