

Two different ways of left ventricular pseudoaneurysm formation after myocardial infarction – case reports

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Introduction: Left ventricular (LV) pseudoaneurysm (PA) are rare but rare complications after myocardial infarction (MI), caused by the partial rupture or defect on LV wall, with intact pericardium.¹⁻³

Case report 1: 57-years-old male patient, with anamnesis of old MI of the inferior wall, was admitted to the hospital for angina pectoris. Coronarography was performed without significant stenosis of coronary arteries. On the echocardiography (January 18, 2017) defect in the inferior wall of the LV was confirmed, together with a small pericardial effusion (**Figure 1**). 10 days after, enlargement of the PA was noticed (1.52 cm) without symptoms (**Figure 2**). The patient refusing surgical treatment. On February 28, enlargement of the PA was noted. But due to congestive heart failure on March 28, further PA enlargement was spotted – the size of the PA was 16,5 cm² (**Figure 3**). The operation was done with Dor's approach. On the echocardiography done one month after the operation the patient was hemodynamically stable without rhythm changes, and symptom free.

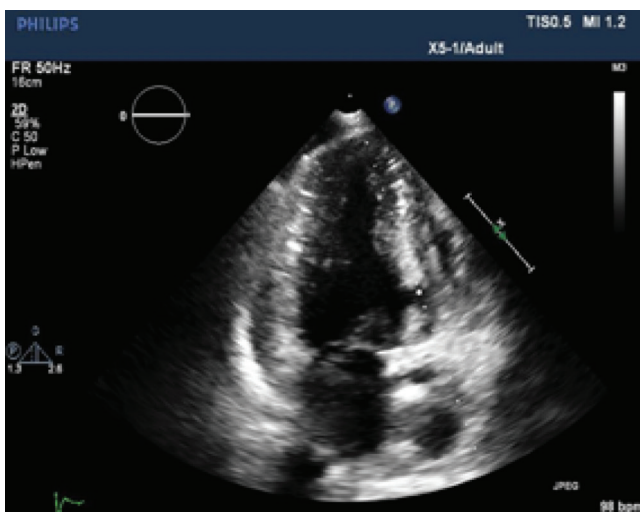


FIGURE 1. Small pericardial effusion.

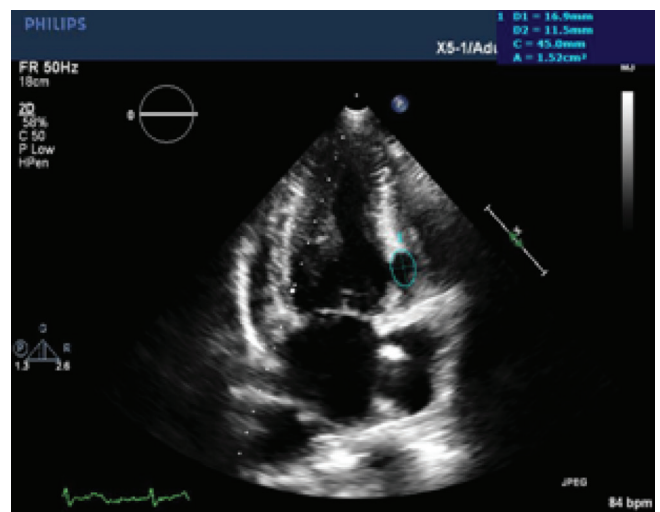


FIGURE 2. Enlargement of the pseudoaneurysm.

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Case report 2: 70-years-old patient was admitted to the hospital due to an anterior STEMI on July 3, 2019. The urgent PCI was performed. Echocardiography on July 5 noted small discontinuities in of apical segment. Another examination was scheduled for July 12, but the patient did not show up. On July 23, the patient was admitted like an urgent case with atrial fibrillation and congestive heart failure. In the echocardiography the rupture of myocardium in apical region was noted, 2 cm long, with large pseudoaneurysm formation (**Figure 4**). Urgent cardiac surgery was done. On the check conducted on August 15, 2019, optimal reconstruction of LV has been noted, with very good EF from 62% on basal region with akinetic apical segment, due to a reconstruction of this part.

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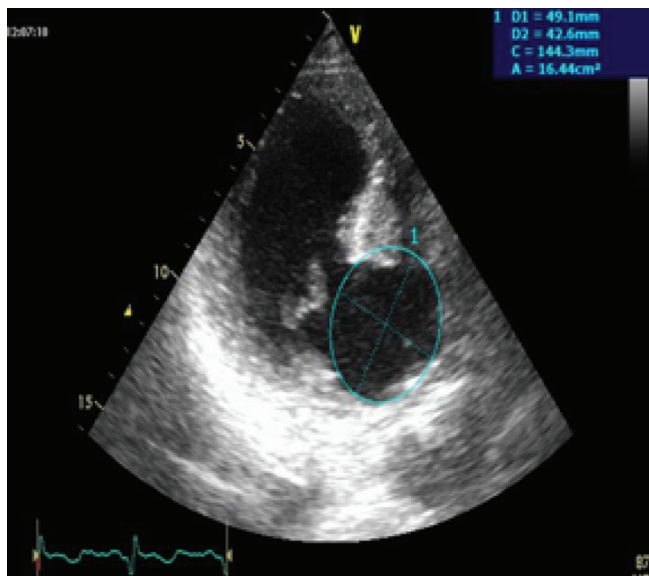


FIGURE 3. Further pseudoaneurysm enlargement.

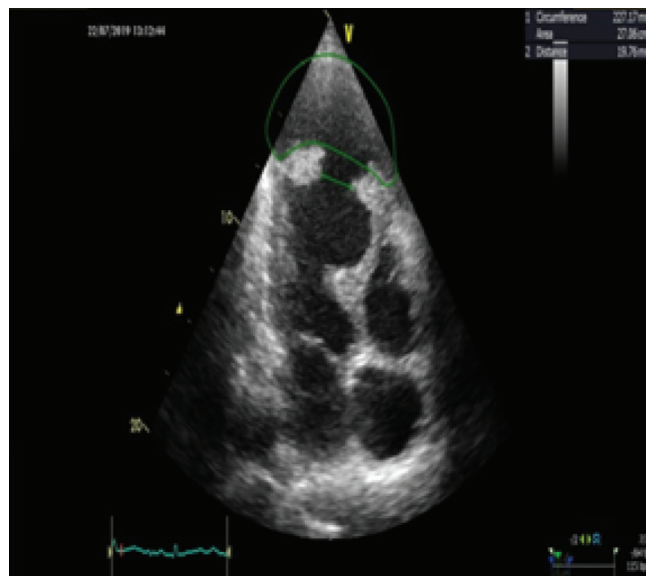


FIGURE 4. A 2 cm long rupture of the myocardium in the apical region was observed, with large pseudoaneurysm formation.

Conclusion: 1. PA are rare but very serious complications; 2. Hemodynamic and rhythmical instability are present in both cases; 3. Surgical intervention is necessary option in cases of PA with acute rupture and in those with the tendency of their increase; 4. Cardiosurgical interventions of the PA should be conducted timely, before the damages of LV, which disables their optimal treatment.

LITERATURE

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