

## Successful Treatment of Rupture of the Free Wall of the Left Ventricle

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### Abstract

Rupture of the free wall of the left ventricle is a rare complication of acute myocardial infarction and in most cases ends fatally. The patient at the age of 60 was hospitalized in order to myocardial infarction. Coronarographically, occluded arteria coronaria circumflexa was determined, dilatation was unsuccessful and the continuation with drug therapy. Nine days later, he suddenly felt pressure in the chest and general weakness. Urgent echocardiography demonstrated cardiac tamponade and he was immediately sent to emergent surgery. The patient an excellent recovery and two weeks after was discharged home.

### Description

The patient, aged 61, was brought to the emergency room by the ambulance after suffering from nausea, pressure in the chest, and a temporary loss of consciousness. It was the patient who was released from the hospital the same day, where he was treated for acute infarction without ST elevation with max. troponin I 3,012 µg/L. During hospitalization, the patient underwent coronary angiography and echocardiography. Coronarographically, occluded arteria coronaria circumflexa was determined, dilatation was attempted at the site of the occlusion but without success and the continuation of drug therapy was recommended.

Other epicardial arteries were angiologically without significant stenosis. Echocardiography at the admission of the patient determined preserved systolic function of the left ventricle with dropout contractility of the basal part of the lateral wall and basal part of the inferior wall. The patient was treated with low molecular weight heparin, aspirin, angiotensin converting inhibitor, statin and beta-blocker.

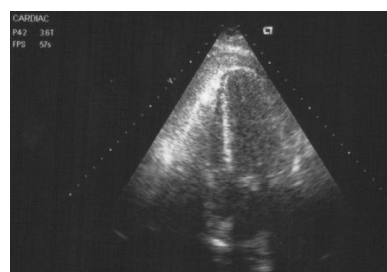
On the ninth day he was discharged in a stable condition. A few hours after he was discharged he suddenly felt pressure in the chest and general weakness. Upon the arrival in the emergency room the patient was pale, hypotensive, sweaty, the pressure in his chest was still present. Electrocardiogram showed the right bundle branch block, with no significant change in ST segment. The patient was resuscitated with intravenous fluids and inotropes.

An urgent transthoracic echocardiography, bedside echo, was performed and it showed a pericardial effusion of the entire circumference, with signs that indicate tamponade shown in Figure 1, there was a collapse of the right atrium and ventricle. Color flow Doppler imaging failed to identify the area of the rupture. Then an urgent CT of the thorax was made. On that basis, the suspicion of the rupture of the ventricular free wall was confirmed. He was immediately sent to emergent surgery. The surgery was done straight away, it consisted of an evacuation of hemorrhagic effusion, hemostasis, and then a completion of the suture. The patient had an uneventful postoperative course and was discharged 14 days following

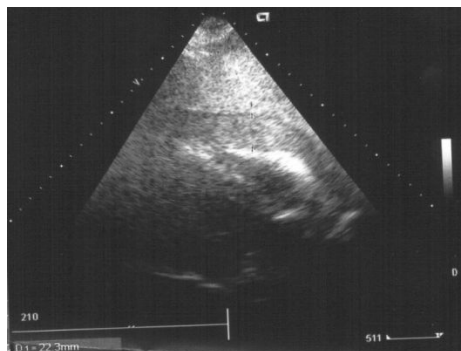
the operation, the echocardiography on the day he was released showed a moderate pericardial effusion of up to 10 mm with a thinned inferior wall of the length of 8 mm. The checkup which took place 6 weeks after the general procedure showed almost complete regression of pericardial effusion (Figures 2-5).



**Figure 1:** Pericardial effusion of the entire circumference, with signs that indicate tamponade.



**Figure 2:** Pericardial effusion of the entire circumference, with signs that indicate tamponade.



**Figure 3:** Pericardial effusion of the entire circumference, with signs that indicate tamponade.



**Figure 5:** echocardiography showing a moderate pericardial effusion



**Figure 4:** echocardiography showing a moderate pericardial effusion