

Images in...

Chronic left ventricular pseudo-aneurysm after posterior myocardial infarction

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DESCRIPTION

A 69-year-old man was seen among outpatients after an episode of chest pain. He was pain-free and haemodynamically stable. His electrocardiogram was normal, but a pan-systolic murmur was noted on examination. He was referred for outpatient exercise treadmill testing and transthoracic echocardiography.

The echocardiogram demonstrated an akinetic basal posterior wall of the left ventricle that had thinned to the point of rupture (figure 1). Adjacent was a large pseudo-aneurysm measuring $4.5 \times 7.5 \text{ cm}^2$. Flow across the posterior wall was demonstrated with colour and pulse wave Doppler (figure 2). Subsequent coronary angiography revealed three vessel coronary artery disease with a severe stenosis in the mid-circumflex artery.

Rupture of the left ventricular free wall is very uncommon and is almost universally catastrophic. In rare instances the rupture is contained and a pseudo-aneurysm develops. Pseudo-aneurysms usually occur after myocardial infarction, but can occur after surgery or infection.

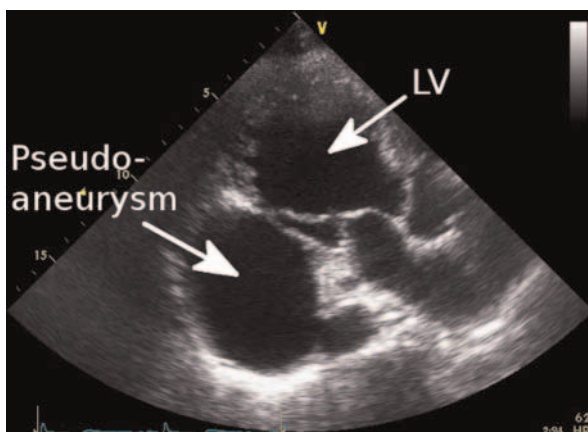


Figure 1 Transthoracic echocardiogram demonstrating a large pseudo-aneurysm adjacent to the posterior wall.

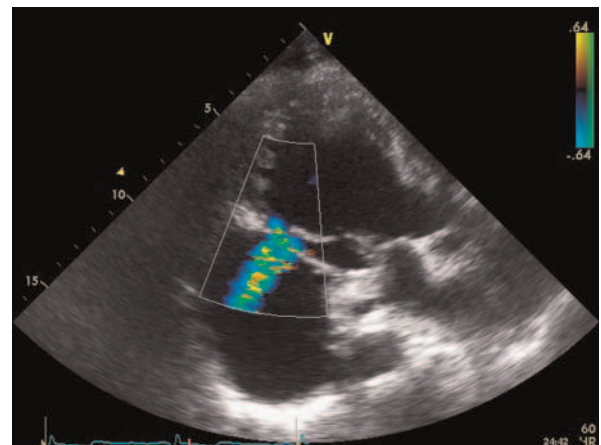


Figure 2 Transthoracic echocardiogram with colour Doppler demonstrating flow across the posterior wall into the pseudo-aneurysm.

They develop when a rupture is contained by pericardial adhesions. Pseudo-aneurysms are most commonly associated with the inferior or posterior wall, have a narrow neck communicating with the left ventricle and are prone to expansion and rupture.¹ Left ventricular rupture and pseudo-aneurysm formation after myocardial infarction can be reduced by early restoration of blood flow,² and early use of β -blockers and ACE inhibitors. Once pseudo-aneurysms have formed they must be corrected surgically before rupture.

Competing interests None.

Patient consent Obtained.

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