IMAGES IN CARDIOLOGY

Heart 2005;91:e54 (<http://www.heartjnl.com/cgi/content/full/91/9/e54>). doi: 10.1136/hrt.2004.052225

Intramycardial dissection after subacute anterior wall myocardial infarction

A 73 year old man was admitted to our cardiology department with progressive dyspnoea. He had suffered a subacute anterior wall myocardial infarction three weeks earlier. He was successfully treated for heart failure with diuretics and angiotensin converting enzyme (ACE) inhibition.

Our patient underwent coronary angiography that revealed significant two vessel disease with proximal left anterior descending coronary artery (LAD) occlusion and stenosis of the distal right coronary artery (RCA). An uncomplicated percutaneous coronary intervention (PCI) of the occluded LAD was performed, with restoration of TIMI 2 flow. Echocardiographic follow up is shown in fig 1, panels A

(admission), B (day 15), and C (day 32). An anterior wall myocardial infarction with apical aneurysm, progressive aneurysm dilatation, and eventually intramycardial dissection with pericardial effusion are seen (arrows).

He underwent urgent operation (fig 2); 450 ml of fresh blood was drained initially. A dissection of epicardium (black arrow) from endocardium (white arrow) was confirmed with a 4 cm hole in the endocardium. Subsequent surgical remodelling was performed with a pericardial patch ("Dor" technique). The patient made an uneventful recovery and because of poorly tolerated non-sustained monomorphic ventricular tachycardias, an ICD was implanted.

Intramycardial dissecting haematoma is a rare form of cardiac rupture that can occur as a complication following acute myocardial infarction or during the remodelling process. It is usually caused by a haemorrhagic dissection among the spiral myocardial fibres and needs urgent surgical treatment. In general, it is accepted that a patent infarct related artery favourably affects left ventricular remodelling, but its relation to this rare complication of remodelling remains unknown.

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Figure 1

Figure 2