Magnetic resonance imaging of recurrent left ventricular pseudoaneurysm following surgical repair

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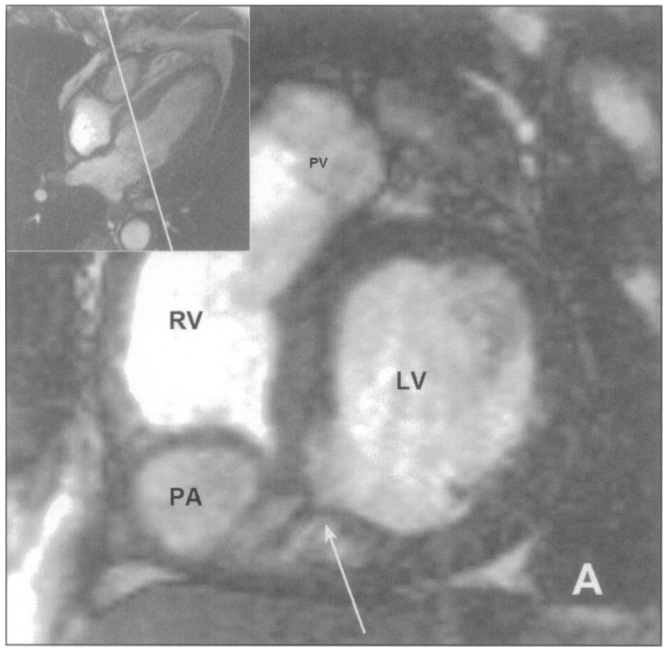

Figure 1A. Systolic image with jet (arrow) from left ventricle (LV) into pseudoaneurysm (PA). RV=right ventricle, PV=pulmonary valve. Inset: planning of the imaging plane from four chamber view for jet visualisation.

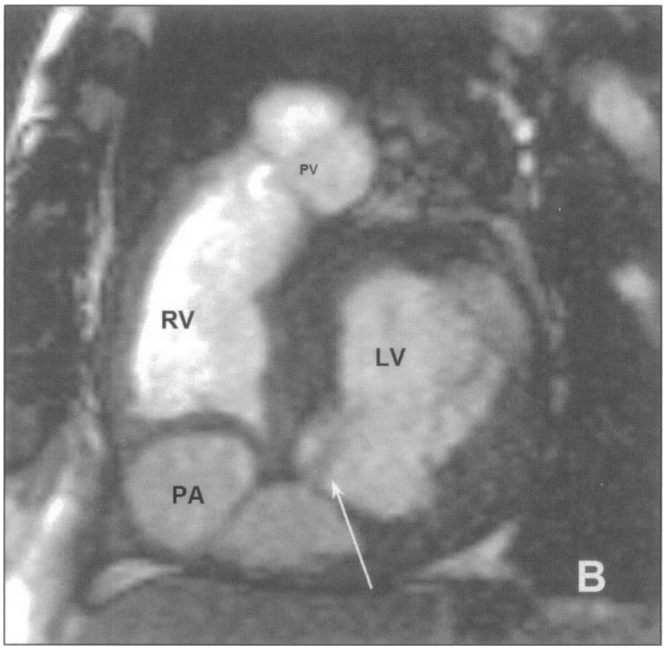

Figure 1B. Diastolic image.

A 65-year-old man presented to our hospital with chest pain and electrocardiographic signs of acute inferoposterior myocardial infarction. Two days following primary PTCA of the right coronary artery he developed severe dyspnoea and hypotension. Echocardiography diagnosed a basal inferoposterior pseudoaneurysm with compression of the right ventricle, consistent with tamponade. At surgery, a 2x2cm rupture of the inferoposterior left ventricular wall was closed using the 'sandwich technique' with two Dacron patches, sealed together with biological glue. Post surgery there were no complications. Five months later the patient was readmitted with clinical and radiological evidence of pulmonary oedema. Transoesophageal echocardiography suggested persistent pseudoaneurysm, but no flow could be detected. MRI demonstrated a pseudoaneurysm arising from the basal inferoposterior region of the left ventricle. A narrow jet of blood can be visualised entering the pseudoaneurysm during systole (figure 1A), and re-entering the left ventricle in diastole (figure 1B). There is a

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septation in the pseudoaneurysm, presumably due to separation of the outer patch from the pericardium. MRI offers excellent spatial and temporal resolution for the assessment of cardiac anatomy and function. Flow can also be seen (and quantified) in any plane, as demonstrated in the images. The patient's symptoms settled with treatment and he did not want to be considered for repeat cardiac surgery. ■

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This section is edited by M.J.M. Cramer and J.J. Bax.

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