

## Short reports

### Primary liposarcoma of the pericardium

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A 40-year-old woman presented with a three-week history of arthralgia, malaise, and central chest and mid-dorsal pain influenced by posture and respiration. She had been in a road traffic accident five weeks before admission. On examination there was a loud pericardial rub but no signs of cardiac tamponade or constriction.

Electrocardiography showed low voltage complexes with non-specific ST segment and T-wave changes. Chest radiographs showed widening of the mediastinum, probably due to an anterior

mediastinal mass. Haemoglobin was 14.6 g/dl and ESR (Westergren) 18 mm in 1 hr. Echocardiography showed no intracardiac abnormality, but the heart was displaced posteriorly by a dense solid anterior structure 5 cm in depth (fig 1). Aortography showed no evidence of traumatic rupture but posterior displacement of the aorta by the mass.

At operation (Mr B B Milstein) a large intrapericardial tumour was discovered extending from the innominate vein to the diaphragm. It arose

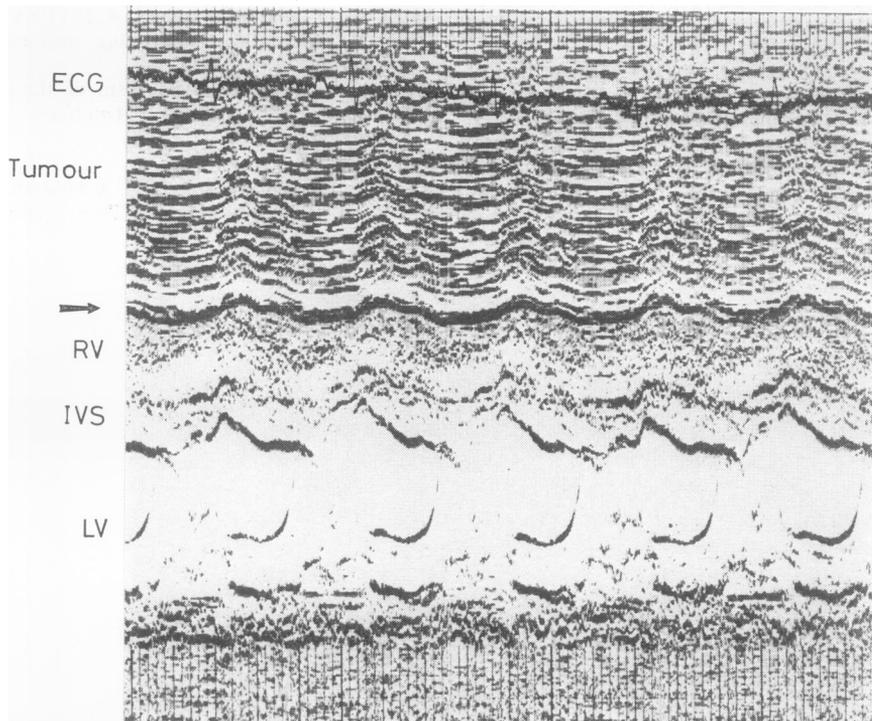


Fig 1 Echocardiogram showing dense anterior echoes of tumour with pericardial fluid (arrow) and other cardiac structures displaced posteriorly. RV=right ventricle; IVS=interventricular septum; LV=left ventricle; ECG=electrocardiogram.

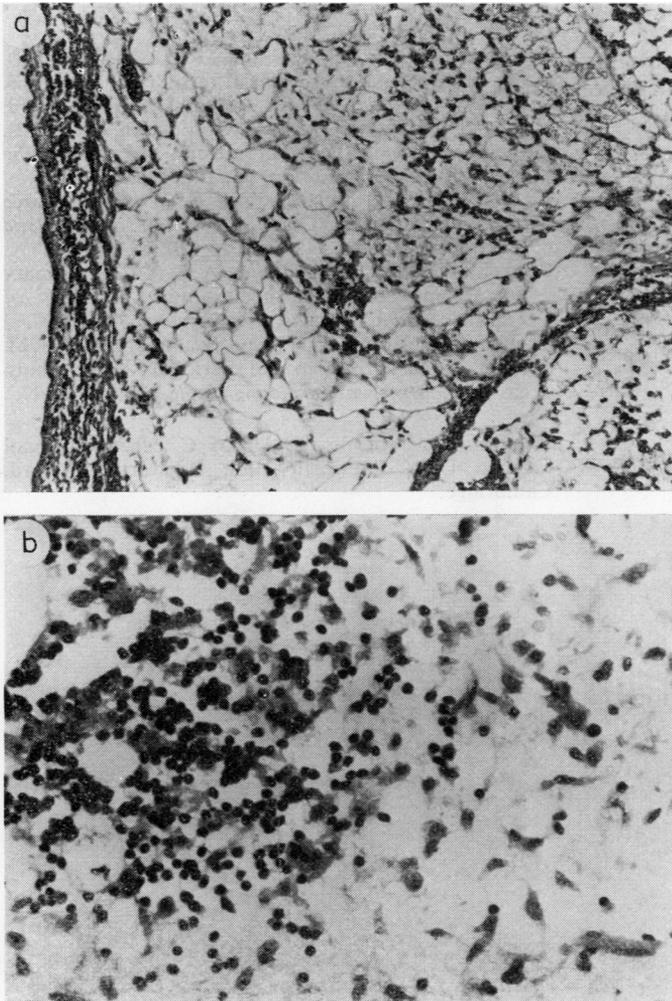


Fig 2 (a) Histology of tumour showing capsule and subcapsular mixture of mature and immature fat cells (Haematoxylin and eosin  $\times 99$ ). (b) Lymphocytic area in tumour cells (H & E  $\times 244$ ).

from the adventitia of the aorta and extended around the root of this vessel. It measured  $16 \times 14 \times 8$  cm and weighed 830 g. It had a creamy-yellow cut surface. Microscopy showed a liposarcoma with lymphocytic and plasma cell foci and areas of increased cellularity and myxomatous change (fig 2). It was thought to be of low-grade malignancy.

The patient has recovered uneventfully. After operation the echocardiogram showed disappearance of the echo-dense anterior structure. The chest radiograph showed the heart size to be smaller than on an apparently normal film taken eight years previously.

### Comment

Pericardial tumours may present, as in this case, with acute pericarditis. If an effusion develops signs of pulsus paradoxus, distension of the neck veins or tamponade may be present.

Diagnostic aids include pericardiocentesis with cytological examination of the fluid and injection of radiological contrast material (Bartecchi *et al*, 1973); also angiography. Echocardiography is recognised as a valuable method of diagnosing pericardial effusions and constrictive pericarditis. In our case the dense anterior echoes were highly suggestive of a mediastinal tumour. The differen-

tial diagnosis included traumatic aortic aneurysm, which was excluded by aortography, and a secondary tumour for which there was no other evidence. A primary pericardial tumour therefore seemed likely.

Only two previous cases of primary pericardial liposarcoma have been reported, and in both of these surgical treatment was successful (Bartecchi *et al*, 1973, Troncone *et al*, 1976). Two cases of liposarcoma arising in the inter-atrial septum have been described (Castleman and McNeely, 1971; Blake *et al.*, 1972), but liposarcomas arising at other sites in the mediastinum are more common (Schweitzer and Aguam, 1977). Recurrence of this tumour seems likely and should be easily detectable by echocardiography.

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## References

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