

Diagnostic Images

Pulmonary varix – pathognomonic appearance

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The patient

A female aged 22, known to have mitral valve disease was found to have a right posterior paracardiac mass. The electrocardiogram showed left axis deviation and atrial fibrillation.

Investigations

Chest radiographs and computed tomographic (CT) scan.

Comment

A well defined lung mass with clear margins and no other signs such as lymphadenopathy, pulmonary infiltration, consolidation, collapse or bone involvement usually indicates a benign lesion, whether a tumour such as an adenoma (carcinoid), cyst or vascular abnormality. Bronchogenic, pericardial and hydatid cysts do not show contrast enhancement, adenomas do enhance but not as significantly as vascular lesions. In this patient not only was the enhancement of the mass similar to the cardiac chambers but there was a vein entering the mass and a connection with a left pulmonary vein. Pulmonary varix is a recognized, albeit uncommon, complication of mitral valve disease.

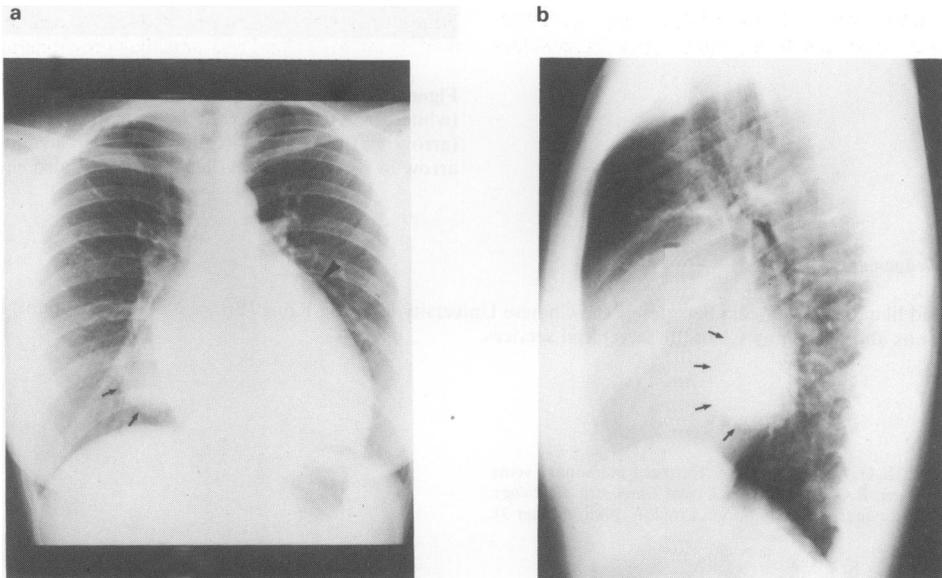


Figure 1 (a) P.A. view (b) Lateral view. On the chest radiograph there are signs associated with mitral valve disease particularly a prominent left atrial appendage (arrow head). There is also a right posterior paracardiac mass.

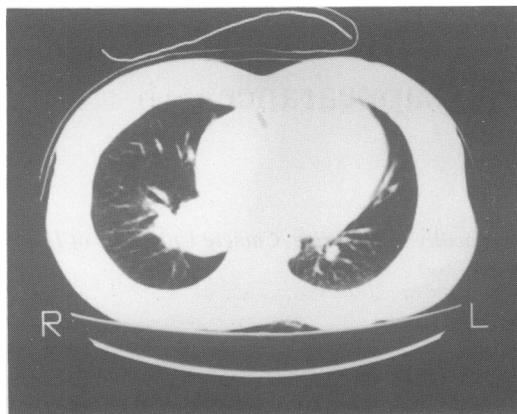


Figure 2 On CT the mass is adjacent to the right heart border, has well defined antero-posterior borders and pulmonary vessels laterally. The lung appears normal.

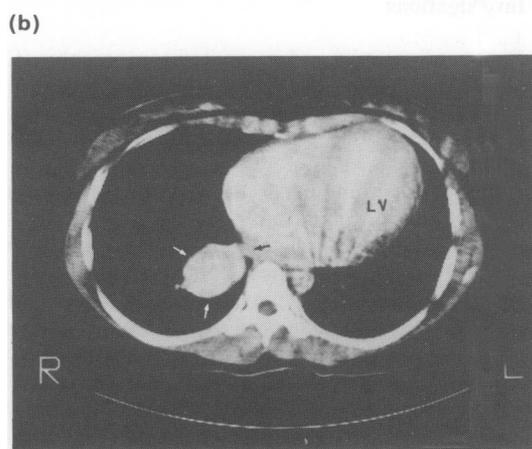
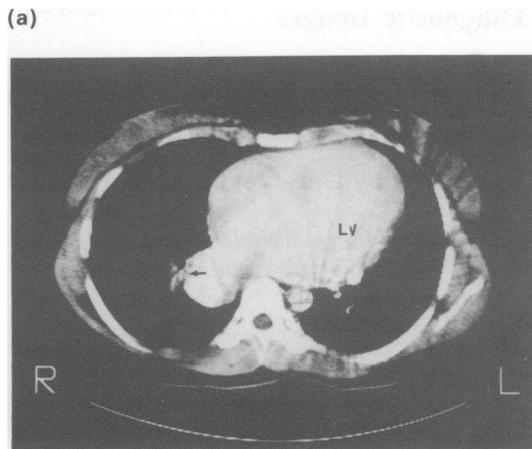


Figure 3 There is contrast enhancement of the mass (white arrow) similar to the heart with a vein entering (arrow in a) and another exiting into the left atrium (black arrow in b). The enlarged left ventricle is also shown.

Acknowledgements

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Reference

1. Grainger, R.G. & Donner, R.M. Enlarged pulmonary veins. In: Grainger, R.G. & Allison, D.J. (eds) *Diagnostic Radiology*. Churchill Livingstone, Edinburgh, London, 1986, chapter 31, p. 537.