Diagnostic Images

A calcified thoracic mass

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The patient

A male aged 64 who was known to have chronic obstructive airways disease and a past history of cardiac ischaemia presented with breathlessness.

Investigations

A chest radiograph was taken and then computed tomography (CT) was performed.

Figure 1 (a, b) The tortuous aorta (A) as well as the left ventricle (LV) on both frontal and lateral views appear to be closely related to the mass (M). A thin margin of calcification is also visible.

Figure 2 On CT the mass lies postero-laterally, with a gap of 2 cm from the aorta (A) but abutting the left ventricle. The left ventricle (LV) has a bulge into mass (arrows) where there is a defect in the calcified rim (asterisk).

Figure 3 Lung window setting shows gross bullous formation at the level of the aortic arch (AA) more marked on the left where there is only minimal lung parenchyma visible.

Comment

A mass lesion on a chest radiograph closely related to the heart and aorta with curvilinear calcification may be a calcified aneurysm either of the aorta or left ventricle but could also be a quite separate pathology such as a dermoid cyst, teratoma, calcified leiomyoma, duplication cyst and neurolemoma. In this case the mass is closely applied to the left ventricle.

On CT the descending aorta is separated from the mass and the left ventricular cavity can be seen bulging into the mass and continuous with it, indicating a left ventricular aneurysm with rim calcification. The CT also demonstrated severe bullous emphysema especially of the left lung.

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References

1. Scully, R.E. (ed.) Case records of the Massachusetts General Hospital Case 42, 1988. *N Engl J Med* 1988, **319**: 1073–1080.
2. Jefferson, K. & Rees, S. Left ventricular aneurysm. In: *Clinical Cardiac Radiology*, 2nd edition. Butterworths, London, Boston, 1980, pp. 257–259.