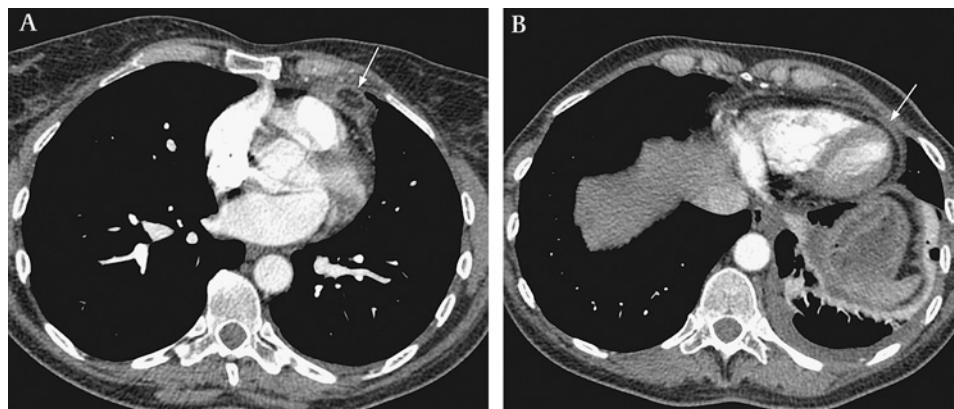


Acute chest pain caused by pericardial fat necrosis

A 55-year-old woman presented at the emergency department with acute pleuritic chest pain. The pain was located on the left side of the sternum. Her relevant medical history revealed gastro-oesophageal reflux disease. Physical examination, laboratory investigations and a plain chest radiograph were normal. The patient was thought to be suffering from gastro-oesophageal reflux disease and was treated with antacids. After 3 days she visited the outpatient clinic with the same complaints but now there was also shortness of breath. A CT-angiogram was performed to exclude a pulmonary embolism and to look for an alternative diagnosis. This showed pericardial fat necrosis (figure 1).

Pericardial fat necrosis is an uncommon cause of acute pleuritic chest pain. It is a self-limiting benign disorder which sometimes presents as a pericardial mass. Its aetiology is unknown but pathology shows encapsulated fat necrosis as is found in epiploic appendagitis or fat necrosis in the omentum or breast. A plain chest radiograph can be normal or may show an increased opacity in the paracardial space. CT scan reveals a fatty lesion in the pericardial fat with surrounding inflammatory changes, pericardial and/or pleural thickening and occasionally pleural fluid.¹ Because of its self-limiting nature treatment is conservative.² Our patient was treated symptomatically with a non-steroidal anti-inflammatory drug and was free of symptoms at 4 weeks of follow-up.

Figure 1 Contrast-enhanced axial CT images. (A) A lipid mass in the left cardiophrenic space (arrow) surrounded by inflammatory changes. (B) Pericardial thickening (arrow) and pleural effusion.



Learning points

- ▶ In a patient with acute pleuritic chest pain and a normal chest radiograph, CT can identify alternative diagnoses such as pericardial fat necrosis.
- ▶ Pericardial fat necrosis has characteristic CT findings.
- ▶ Pericardial fat necrosis is a self-limiting disease.

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