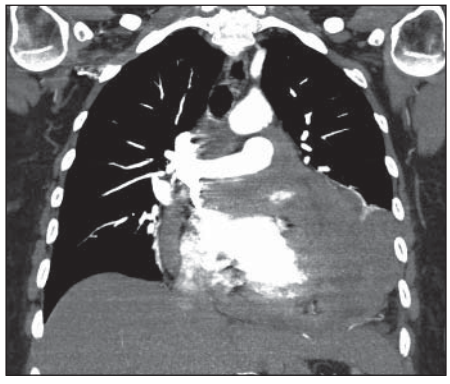
A simple case of heart failure?

Discussion

Primary pericardial mesothelioma is an extremely rare tumour (Ladrotteria et al, 2005). There is no definite causative association with asbestos (Thomason et al, 1994; Ladrotteria et al, 2005), unlike primary pleural mesothelioma. Common presenting signs and symptoms in the literature include constrictive pericarditis, cardiac tamponade and, as in this case, cardiac failure (Suman et al, 2004). Prognosis remains poor because of the late presentation of the disease and the limited treatment options available. Most patients are managed with active supportive care after diagnosis, and this was the case with this patient. BJHM

Figure 1. Coronal section of the chest.



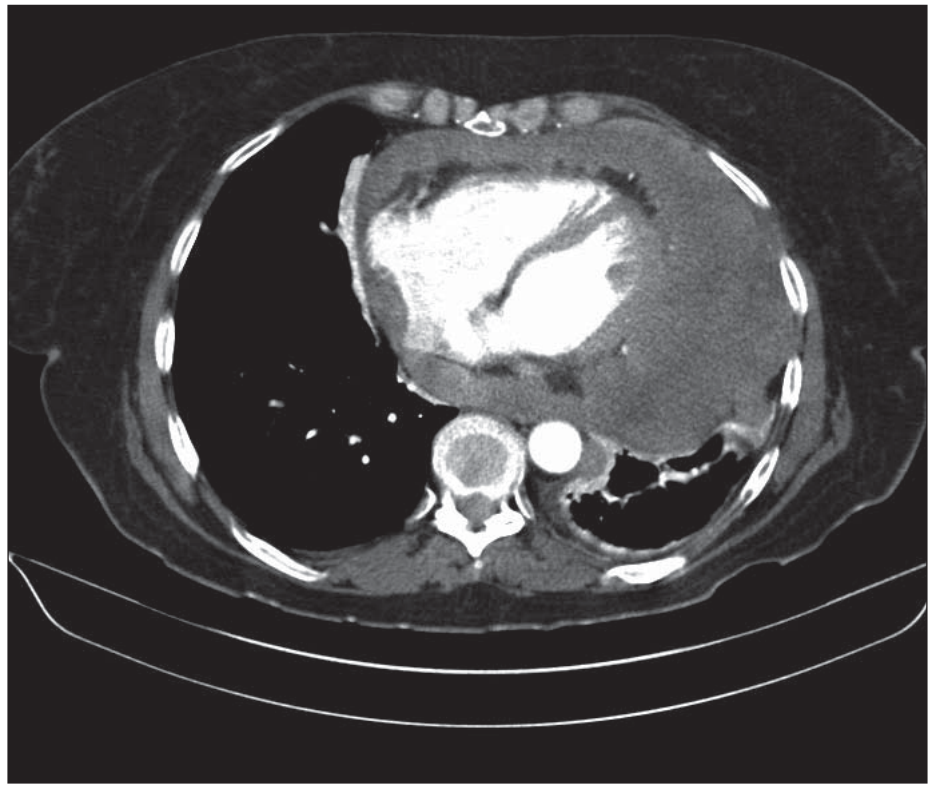


Figure 2. Transverse section through the chest.

Case Report

A 68-year-old woman presented with a 6-week history of progressive lethargy and weight loss. Over the previous 2 weeks she had also complained of increased ankle swelling, orthopnoea, a sensation of chest tightness, dyspnoea and dry cough. Her only past medical history was hypothyroidism, for which she was on adequate replacement therapy and hypertension. She had no other cardiovascular risk factors, had given up smoking at 32 years of age and was a retired health-care worker with no known exposure to asbestos.

Clinical examination revealed signs of heart failure and a left-sided pleural effusion. Her blood pressure was 125/55 mmHg, pulse rate 90 beats per minute and oxygen saturation of 94% on air. Basic blood tests, including cardiac enzymes, came back within normal parameters except for white cell count of $15.0x10^3/mm^3$ and a C-reactive protein of 114 mg/litre. An electrocardiogram showed inverted T waves across the chest leads. A chest radiograph demonstrated a left-sided pleural effusion, with no apparent cardiomegaly or lung lesion.

A diagnostic pleural aspirate was performed, fluid was blood stained. It was a borderline transudate according to Lights criteria (pleural:serum ratio of total protein and lactate dehydrogenase being 0.48 and 0.47 respectively). Two separate aspirates were negative for malignant cells on cytological analysis. A computed tomography scan to investigate the effusion further revealed irregular pericardial thickening, a large left pleural effusion and some consolidation in the posterior aspect of the left lung base (*Figures 1* and *2*). Echocardiography demonstrated a pericardial effusion but without evidence of tamponade.

For definitive diagnosis of the suspicious pericardial thickening a decision was made to undertake a radiologically-guided biopsy. This was performed at a local tertiary referral centre. The histology obtained on balance suggested that this was pericardial mesothelioma.

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