

30. **Andriani F**, Conte D, Mastranoelo T, *et al*. Detecting lung cancer in plasma with the use of multiple genetic markers. *Int J Cancer* 2004;**108**:91–6.
31. **Sozzi G**, Conte D, Mariani L, *et al*. Analysis of circulating tumor DNA in plasma as diagnosis and during follow-up of lung cancer patients. *Cancer Res* 2001;**61**:4675–8.
32. **Esteller M**, Sanchez-Cespedes M, Rosell R, *et al*. Detecting of aberrant promoter hypermethylation of tumor suppressor genes in serum DNA from non-small cell lung cancer patients. *Cancer Res* 1999;**59**:67–70.
33. **Bremnes RM**, Sirera R, Camps C. Circulating tumour-derived DNA and RNA markers in blood: a tool for early detection, diagnostics, and follow-up? *Lung Cancer* 2005;**49**:1–12.
34. **Sheu CC**, Yu YP, Tsai JR, *et al*. Development of a membrane array-based multimarker assay for detection of circulating cancer cells in patients with non-small cell lung cancer. *Int J Cancer* 2006;**119**:1419–26.
35. **Emberley ED**, Niu YL, Leygue E, *et al*. Psoriasis interacts with Jab1 and influences breast cancer progression. *Cancer Res* 2003;**63**:1954–61.
36. **Lehmann R**, Melle C, Eggeling FV, *et al*. Detection and identification of protein interactions of S100 proteins by Proteinchip technology. *J Proteome Res* 2005;**4**:1717–21.
37. **Shaykhiew R**, Bals R. Interaction between epithelial cells and leukocytes in immunity and tissue homeostasis. *J Leukoc Biol* 2007;**82**:1–15.

Pulmonary puzzle

A 75-year-old man with chest discomfort and a cough

CLINICAL PRESENTATION

A 75-year-old man was admitted with a non-productive cough and chest discomfort. He had been admitted 2 months previously with left lower lobe (LLL) consolidation for which he received intravenous antibiotics. He had no weight loss or constitutional symptoms. The chest radiograph (fig 1) revealed persistent consolidation and he was urgently referred to the chest clinic for review.

He was an ex-smoker with a 50 pack-year history. 12 years previously he was diagnosed with carcinoma of the piriform fossa which was successfully treated with pharyngolaryngectomy, radical radiotherapy and subsequent tracheostomy. Examination revealed evidence of his previous surgery and a tracheostomy. He had no clubbing or lymphadenopathy and coarse crackles were heard at the left base, as on the previous admission. After treatment with co-trimoxazole for 3 weeks his chest radiograph remained unchanged. A CT scan of the thorax (fig 2) revealed LLL collapse with dense consolidation in the posterior aspect of the right middle and lower lobes.



Figure 1 Chest radiograph showing persistent consolidation.

middle and lower lobes. The possibility of aspiration was suggested. Bronchoscopy was performed via his tracheostomy which showed a normal right bronchial tree and only a moderate amount of thick white sputum on the left which was easily cleared by washing. Washings were negative for cytology, culture and acid-fast bacilli.

CT-guided biopsy (fig 3) showed fibrosis, elastosis and numerous macrophages

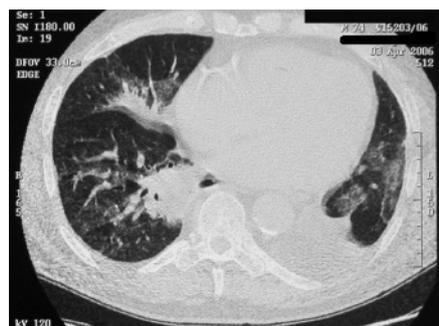


Figure 2 CT scan of the thorax showing left lower lobe collapse with dense consolidation in the posterior aspect of the right middle and lower lobes.

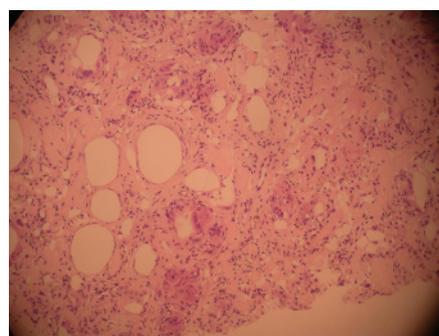


Figure 3 CT-guided biopsy specimen (H&E stain) showing fibrosis, elastosis, macrophages and several multinucleated giant cells surrounding spaces, presumed to contain fat.

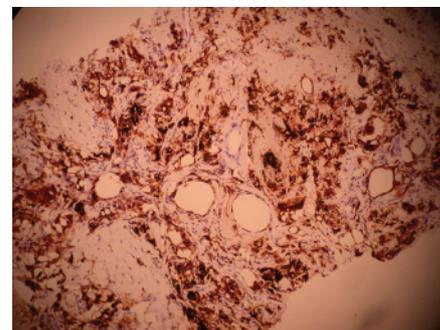


Figure 4 Immunostaining for CD68 which highlights the numerous macrophages.

(CD68 positive, fig 4) with several multinucleated giant cells surrounding spaces, presumed to contain fat. Black carbon pigment was seen in the interstitium and within macrophages. Occasional associated needle-shaped refractile crystals were present and a chronic inflammatory cell infiltrate of lymphocytes. There was no evidence of malignancy.

QUESTION

Is there anything further you would like to ask in the history and can you suggest a possible diagnosis?

See page 376 for answer

This case was submitted by:

J J Owen,¹ L Perry,² R Delaney,² M Charig,³ M J Smith,⁴ L Hart⁴

¹ Department of Respiratory Medicine, Queen Alexandra Hospital, Portsmouth Hospitals NHS Trust, UK;

² Department of Histopathology, Heatherwood and Wexham Park Hospitals NHS Trust, UK; ³ Department of Radiology, Heatherwood and Wexham Park Hospitals NHS Trust, UK; ⁴ Department of Respiratory Medicine, Heatherwood and Wexham Park Hospitals NHS Trust, UK

Correspondence to: Dr J J Owen, Department of Respiratory Medicine, Trafalgar Building, Queen Alexandra Hospital, Southwick Hill Road, Cosham PO6 3LY, UK; drjowen@ic24.net

Competing interests: None.

Thorax 2008;**63**:359. doi:10.1136/thx.2007.087668