Images in *Thorax*

B cell non-Hodgkin's lymphoma of the trachea mimicking COPD

A 65 year old woman with a 15 pack year smoking history had recently been diagnosed in the community with chronic obstructive pulmonary disease (COPD). She was admitted to hospital with progressive breathlessness and wheeze; her exercise tolerance had decreased from 800 metres to less than 50 metres over the last year. Her peak expiratory flow rate on admission was 150 l/min increasing to 320 l/min on discharge after treatment with oral steroids and nebulised bronchodilators.

She was readmitted 3 weeks later with a recurrence of her symptoms. A flow-volume loop suggested intrathoracic large airway obstruction (fig 1). Her chest radiograph showed a mid tracheal mass (fig 2A) which was confirmed on a computed tomographic (CT) scan (fig 2B). Flexible bronchoscopy revealed a polypoid tumour in the trachea 8 cm below the vocal cords causing a 60% reduction in tracheal diameter. Biopsies confirmed a non-Hodgkin's lymphoma of B cell origin. There was no evidence of lymphoma involvement in any other site.

She was initially treated with high dose steroids and received a single 10 Gy fraction of radiotherapy to the trachea. She responded rapidly and her breathing returned to her pre-morbid state. A repeat CT scan after 12 months showed no evidence of tumour at the primary site.

Primary non-Hodgkin's lymphoma of the trachea is very rare. A Medline search identified only 13 case reports in the literature.[1 2] The diagnosis may be delayed as symptoms may be confused with those of asthma or COPD. Direct bronchoscopy and biopsy is the definitive investigation. Primary lymphoma of the trachea is a radiosensitive tumour and can be controlled with moderate doses of radiation.

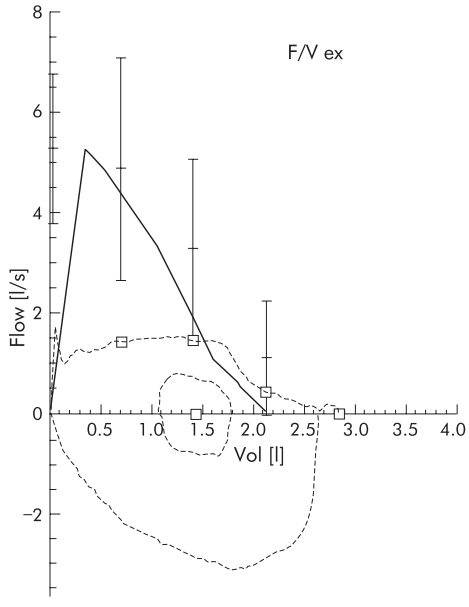

Figure 1 Flow-volume curve.

Learning points

- Primary non-Hodgkin's lymphoma of the trachea is extremely rare and responds well to radiotherapy.
- Not all patients with a ''wheeze'' and reduced peak expiratory flow that responds to steroids have asthma/COPD.

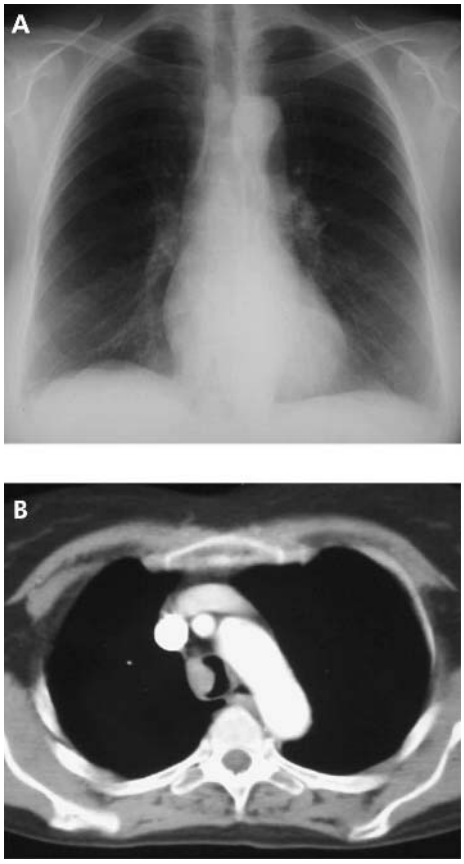

Figure 2 (A) Chest radiograph and (B) CT scan showing mid tracheal tumour.

V Johnson, N J Burrows, N J Ali, G Cox
Department of Respiratory Medicine, Sherwood Forest Hospitals NHS Trust, Nottinghamshire, UK
Correspondence to: Dr G Cox, Department of Respiratory Medicine, King's Mill Hospital, Sutton-in-Ashfield, Nottinghamshire NG17 4JL, UK; giles.cox@sfh-tr.nhs.uk

REFERENCES

1 **Cormier WJ**, Jazy KF, Shehata WM. Primary lymphoma of the trachea. *Eur J Surg Oncol* 1992;**18**:514–6.
2 **Fidias P**, Wright C, Harris LH, *et al*. Primary tracheal non-Hodgkin's lymphoma. A case report and review of the literature. *Cancer* 1996;**77**:2332–8.