

## Atypical lipoma of the lung

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### Abstract

**An unusual endobronchial lipoma characterised by pleomorphic, multinucleated giant cells admixed with mature adipose cells developed in a 52 year old woman, arising from the right middle lobe bronchus. Lobectomy was performed and the postoperative course was uneventful.**

Endobronchial lipomas are uncommon, only 54 cases of endobronchial and endotracheal lipomas having been reported in English publications.<sup>1</sup> In the present case the lesion resembled an ordinary lipoma on gross examination. Histological examination, however, showed pleomorphic, multinucleated giant cells in the mature adipose tissue; this has not previously been reported.

### Case report

A 52 year old woman was admitted to hospital in May 1989, because of a productive cough that had been steadily worsening for the previous six months. She had had no haemoptysis, chest pain, or loss of weight. Chest radiography and computed tomography showed atelectasis of the right middle lobe. At bronchoscopy the right middle lobe bronchus was almost completely obstructed by a smooth surfaced polypoid tumour. Biopsy showed normal bronchial epithelium with underlying fatty and fibrous tissue and a moderate inflammatory cell infiltrate. As repeat bronchoscopy had shown total obstruction of the bronchus right middle lobectomy was performed. The patient made an uneventful recovery, and was symptom free 18 months after the operation.

The right middle lobe measured 7.5 × 3.5 × 3.0 cm. The proximal few centimetres of

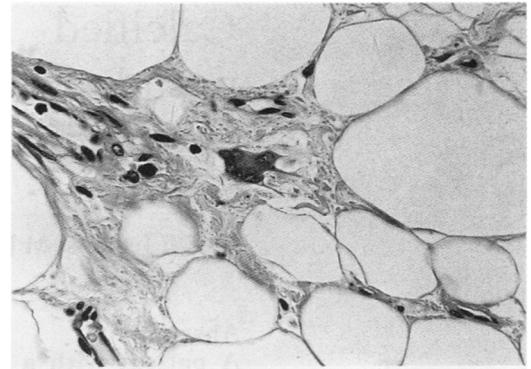


Figure 2 Floret like, multinucleated giant cell. (Haematoxylin and eosin.)

the middle lobe bronchus were cut open and revealed a polypoid, pale reddish, soft tumour with a pedicle about 17 mm from the bronchial resection line. Microscopic examination showed that the tumour was composed of mature adipose tissue admixed with a very small amount of fibromyxoid tissue, smooth muscle, blood vessels, cartilage, and a few lymph follicles (fig 1). Many small giant cells with bizarre, multiple nuclei were found scattered among the mature fat cells. The features were similar to those of "pleomorphic lipoma."<sup>2</sup> The adjacent lung tissue showed chronic inflammatory changes.

### Discussion

Endobronchial lipomas are uncommon and account for 0.1% of all pulmonary tumours.<sup>3</sup> Although they consist predominantly of histologically normal adult fat cells, additional tissue types (fibrous, glandular, bony, or cartilaginous tissue) may be present,<sup>4</sup> as in this case. An unusual feature in the lipoma in the present case is the presence of giant cells with bizarre pleomorphic and multiple nuclei. Many of these cells show a distinctive floret like arrangement of the nuclei (fig 2). This type of giant cell is similar to that described in pleomorphic lipoma, which usually occurs in the posterior neck, shoulder, and back<sup>2</sup> but has not previously been found in the lung. Despite the pleomorphic picture, follow up for 18 months suggested that the tumour was benign. Malignancy has been reported as developing in endobronchial lipomas and hamartomas<sup>5</sup> but whether it really does remains controversial.

Diagnosis of the tumours is often obtained by bronchoscopic biopsy but sometimes, as in this case, only by bronchotomy or thoracotomy.

These tumours may be completely removed bronchoscopically by bronchotomy or by thoracotomy, depending on technical considerations, and this should result in a cure.<sup>3</sup>

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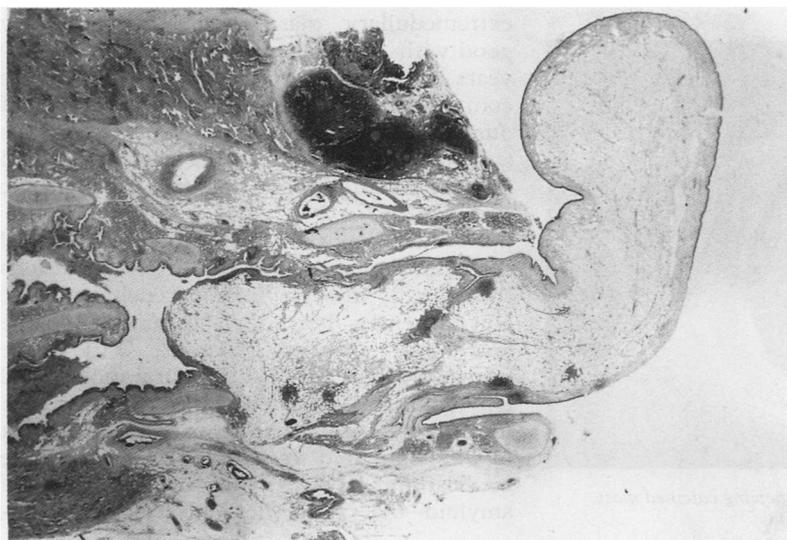


Figure 1 Low power photomicrograph of the polypoid fatty tumour protruding from the bronchial wall. (Haematoxylin and eosin.)

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