Teratoma presenting with trichoptysis

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CASE PRESENTATION

A 23-year-old woman, never smoker and native of Morocco was admitted for recurrent cough accompanied by persistent mucous expectoration containing dark hairs, a phenomenon also known as trichoptysis. Her medical history was unremarkable. Chest x-rays, magnetic resonance imaging and computed tomography (CT) revealed a mass in the anterosuperior mediastinum measuring 7.5 cm × 7.0 cm × 6.5 cm, containing fat-density material and air spaces revealing a direct communication with bronchial structures (Figures 1A and 1B). Gynecological examination and total-body CT scan ruled out the presence of uterine or ovarian masses. Routine laboratory tests and serum tumour markers including beta-human chorionic gonadotropin were within normal range. The patient underwent bronchoscopy examination of the anterior segment of the left upper bronchus revealing several black-pigmented hairs in the bronchial lumen admixed with whitish mucus (Figure 1C). A diagnosis of intrathoracic teratoma of the mediastinum was suggested. The patient refused surgery, but she presented three years later with profuse trichoptysis. The surgical resection of the mass confirmed the clinical diagnosis of mature teratoma.

DISCUSSION

Teratoma of the lung is a very rare occurrence. Symptoms are generally nonspecific or due to thoracic discomfort related to the physical encumbrance of the mass compressing neighbouring structures. Trichoptysis is secondary to the passage of intratumoural hairs into the bronchial tree through a fistula and occurs in only 10% to 20% of intrapulmonary teratomas (1,2). This finding is almost pathognomonic for teratoma, particularly in young women. On CT, teratoma is a heterogeneous, well-demarcated mass with a variably thick fibrous, enhancing wall. The tumour always contains high signal intensity soft tissue (on T1-weighted images), also showing a fluid-rich multi/unilocular cystic appearance with fat and calcifications (3).

More than 90% of pulmonary teratomas are benign tumours; complete resection is usually curative and always indicated because malignant transformation may develop.

DISCLOSURES: The authors have no financial disclosures or conflicts of interest to declare.

INFORMED CONSENT: The patient gave informed consent for publication.

Figure 1 A Magnetic resonance imaging showing a mass with a high-signal intensity unilocular cyst with adipose tissue-like density with direct communication with the anterior segment of the left upper lobar bronchus. B Contrast-enhanced computed tomography scan showing a heterogeneous mass with areas of fat (asterisk), a shell-like calcified wall (arrow) and fluid attenuation. C Bronchoscopy revealing numerous black hairs with dense secretions into the bronchial lumen

KEY LEARNING POINTS

- Thoracic teratoma is an exceedingly uncommon benign tumour usually occurring in the anterior mediastinum of young adults, with a slight prevalence in females.
- Trichoptysis, due to fistulization between the mass containing hairs and the bronchial tree, is almost diagnostic and may be the first sign of thoracic teratoma.

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