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Case Report: Endotracheal Hamarthoma in an Adult

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Abstract **Case Report**

This is a case report of a 50-year-old man with chest pain and chronic hemoptysis, which was ultimately attributed to a carinal mass in the trachea. A flexible bronchoscopy and biopsy were performed showing an appearance compatible with a tracheal hamartoma, an extremely rare benign tracheal tumor.

Keywords: chest pain, case report, Endotracheal Hamarthoma, bronchoscopy, tumors.

INTRODUCTION

Primary tracheal tumors are usually malignant and only 10% are benign [1]. Although hamartomas are the most common subtype, localization to the trachea is exceptionally rare, especially in adults [2]. Tracheal hamartomas typically manifest with varying degrees of respiratory distress, ranging from acute respiratory failure to cough, hemoptysis, and chest pain.

We report a case of endotracheal hamartoma in a 50-year-old adult.

OBSERVATION

A 50-year-old male chronic smoker weaned 2 months ago, with a history of hypertension, presented with chronic chest pain and hemoptysis, but no stridor or dyspnea. A flexible bronchoscopy was performed showing a polypoid mass in the carinal region occupying about 50% of the tracheal lumen, there were no other detectable endo-bronchial or parenchymal lesions.

The histopathological study was compatible with a tracheal hamarthoma. The thoracic computed tomography (CT) scan showed an endotracheal mass visible in the carinal region measuring 21x 23x 26 mm, of tissue density homogeneously enhancing after injection of PDC and reducing the tracheal lumen without downstream pneumonia. The latter bulges backwards into the prevertebral space opposite D6 and reaches the esophagus without loss of the fatty separation line. There is a regular circumferential parietal thickening of the left main bronchus narrowing the lumen in places and measuring 8.5 mm.

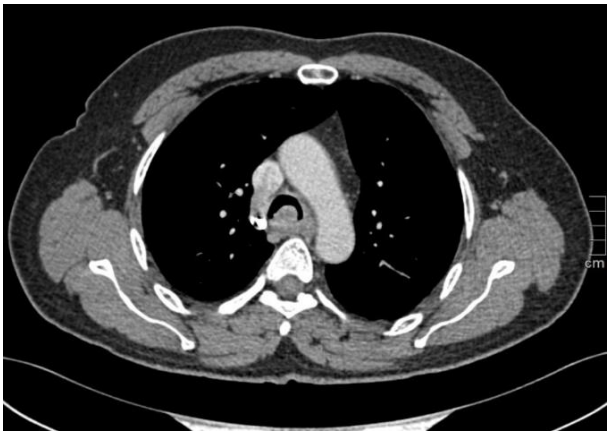

Figure 1: Chest CT scan after PDC injection showing a polypoid endoluminal lesion in the carinal region

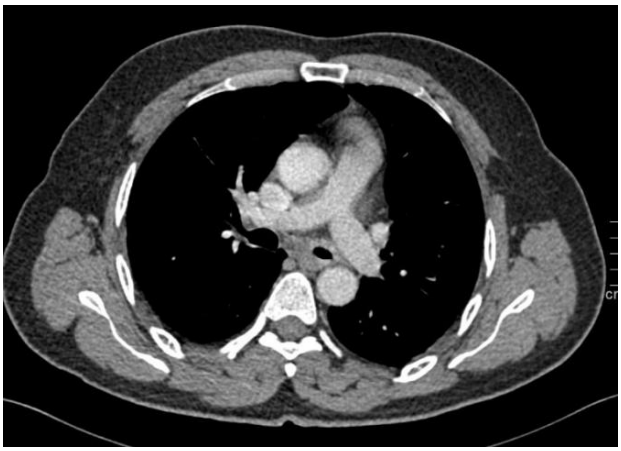

Figure 2: Chest CT scan after PDC injection showing circumferential and regular parietal thickening of the left main bronchus narrowing its lumen in places

DISCUSSION

Hamartomas are the most common benign tumour of the lung. Roughly speaking, they occur endobronchial (or endotracheal) in about 10% of cases and intraparenchymal in the remaining 90% [3].

The majority of documented endotracheal hamartomas have presented between the 3rd and 7th decade of life, as was the case in our patient.

Factors such as patient behaviour including smoking or environmental exposure could contribute to the acceleration of the disease to a clinically presentable point.

Tracheobronchial hamartomas usually present with a variable degree of respiratory distress, depending on the degree of luminal mechanical obstruction, but manifestations ranging from episodes of pneumonia to acute respiratory failure, cough, haemoptysis, chest pain and few symptoms have been described [4].

Tracheal tumours lend themselves to direct visualisation and sufficient sampling by flexible bronchoscopy.

Macroscopically, they are often polypoid, either sessile or with a thin pedicle with a beige to pink surface. Chronic inflammation may exist, resulting in a macroscopically indistinguishable inflamed surface [5].

When a definitive histological diagnosis of benignity is made, management options include either a conservative watch-and-wait approach in asymptomatic lesions [6], or, more commonly, resection. In addition to surgery, there is now increasing experience with methods of bronchoscopic resection of central airway tumours such as endobronchial electrocoagulation, laser and cryotherapy

Laser resection is often possible and may be the treatment of choice in elderly or inoperable patients. Because of the lower risk, laser resection is frequently preferred to conventional operative resection in patients with tracheal hamartomas.

CONCLUSION

We found that endotracheal hamartoma is a very rare condition and tends to present in male patients with variable smoking history, but it can also present in asymptomatic patients without significant smoking history.

This case report also highlights the challenges of timely and correct diagnosis of central airway injury.

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