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Endotracheal hamartoma case report: Two contrasting clinical presentations of a rare entity

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ABSTRACT

INTRODUCTION: The majority of tracheal tumors in adults are malignant. The finding of a benign tumor in the trachea is uncommon and endotracheal hamartomas are rare.
PRESENTATION OF CASE: We report two cases presenting within six months at our institution. The first patient is a 67 year-old man who was found to have an asymptomatic endotracheal hamartoma on chest imaging for aortic valve replacement. The second patient is a 46 year-old man with an extensive continued tobacco use disorder and a known endotracheal lesion identified 8 years prior to intervention. Both patients were treated surgically and recovered without complications.
DISCUSSION: Identification of these lesions and timely management are necessary because without intervention, they can lead to fatal complications. Most symptoms of tracheal hamartoma result from mechanical obstruction with the earliest presenting symptom being dyspnea, but as evident in these two cases, they can have different presentations.
CONCLUSION: We have found that endotracheal hamartoma has a tendency to present in Caucasian, male patients with a comorbidity of respiratory disease and variable smoking history, but it can also present in asymptomatic patients with no significant smoking history.

1. Introduction

Primary tracheal tumors are typically malignant with only 10% being benign. While hamartomas are the most common subtype of pulmonary tumors, localization to the trachea is exceptionally rare, especially in adults [1]. Tracheal hamartomas commonly manifest with varying degrees of respiratory distress, ranging from acute respiratory failure to cough, hemoptysis, and chest pain. Due to the slow-growing nature of these lesions, symptoms are often gradual and persistent, mimicking the presentation of chronic obstructive pulmonary disease (COPD) and further obscuring timely diagnosis and treatment [2]. Failure to detect tracheal hamartoma may cause fatal airway obstruction [3]. Of the few documented cases of tracheal hamartoma, the majority have been Caucasian males with variable histories of tobacco use and underlying respiratory condition masquerading the hamartoma. We report one case of endotracheal hamartoma with a more common presentation and a second case that is inconsistent with previously documented cases. The work has been reported in line with the SCARE criteria [4].

2. Presentation of case

2.1. Case #1

A 67-year-old man with a history of hypertension, severe aortic regurgitation, and a remote less than two-pack year smoking history presented to clinic for evaluation of aortic valve replacement. On a chest computed tomography (CT) scan he was found to have an incidental endotracheal lesion (Fig. 1). The patient was asymptomatic, denying cough, hemoptysis, and shortness of breath.

The patient went to the operating room and on flexible bronchoscopy there was a polypoid lesion on a stalk obstructing 50% of the lumen on the lateral tracheal wall. There were no other endobronchial lesions. We removed the lesion via a rigid bronchoscope. A small amount of bleeding was easily controlled with the neodymium-doped yttrium aluminium garnet (Nd:YAG) laser. On frozen section, the lesion was consistent with a hamartoma. The patient then underwent open replacement of his aortic valve under the same general anesthesia.

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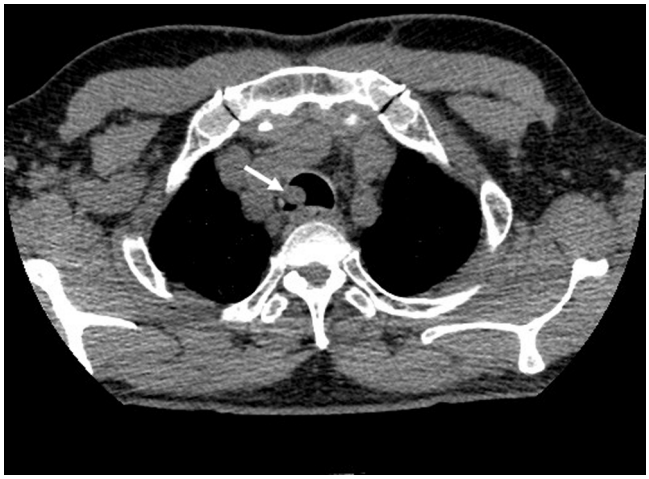

Fig. 1. Chest computed tomography scan without contrast showing polypoid endoluminal lesion in the proximal right trachea (arrow).

2.2. Case #2

A 46-year-old male with a history of hypertension, COPD, and a continued greater than 40-pack-year smoking history presented with chest pain and shortness of breath but no stridor or complaints of hemoptysis. Eight years prior, he had undergone a bronchoscopy at another hospital and was found to have a fibrinous lesion in his mid-trachea. No attempts were made to remove it. One week prior to the current presentation, he suffered a cardiopulmonary arrest, likely secondary to this lesion but was discharged from another hospital with a diagnosis of a COPD exacerbation.

On a chest x-ray there was a rounded opacity within the trachea approximately 5 cm above the carina, just inferior to the clavicular heads (Fig. 2a, b). On chest CT, there was a hypodense lesion measuring approximately 1.8 × 1.8 × 2 cm (Fig. 3).

On flexible bronchoscopy there was a polypoid lesion on a small stalk on the tracheal wall about 5 cm distal to the vocal cords. The lesion was soft and encompassed about 80% of the lumen (Fig. 4a). There were no other endobronchial lesions. Following initial visualization, we placed the suspension laryngoscopy and a flexible bronchoscope in the airway again to snare the lesion. It was about 2 cm, appeared slightly vascular, and on palpation felt slightly calcified (Fig. 4b). We replaced the bronchoscope and did not appreciate any bleeding or any residual tissue at the stalk origin. The patient was extubated and discharged home from the recovery room.

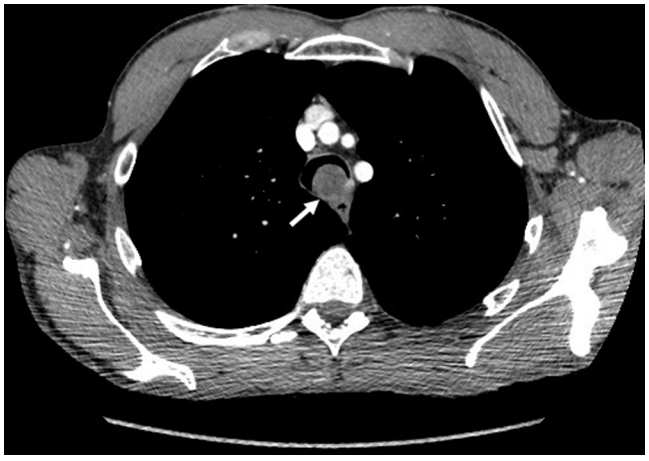

Fig. 3. Chest computed tomography scan with contrast showing a hypodense round lesion within the trachea with areas of fatty attenuation and peripheral enhancement (arrow).

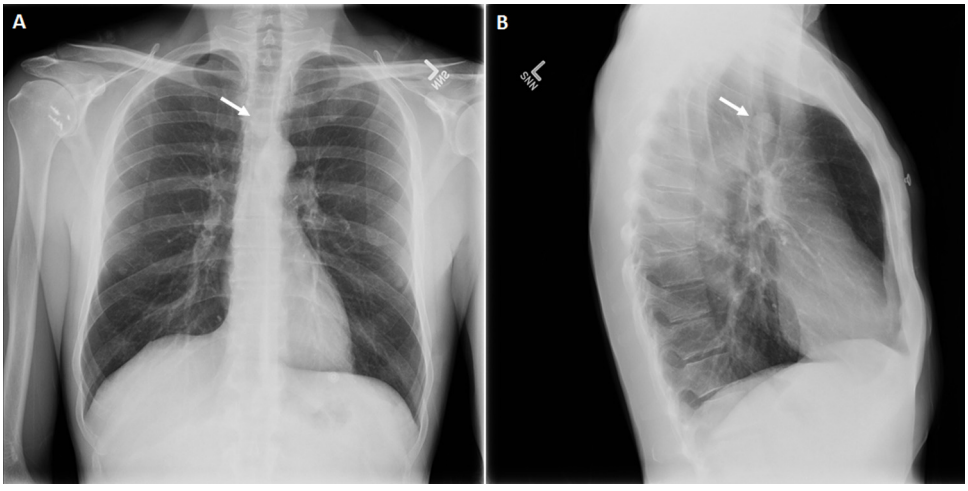

Fig. 2. Chest x-ray (A) anterior-posterior and (B) lateral showing rounded opacity within trachea approximately 5 cm above the carina, just inferior to the clavicular heads (arrow).