



Bronchiectasis Due to a Hidden Underlying Cause; Look to See

Altta Yatan Gizli Bir Nedene Bağlı Bronşektazi; Görmek İçin Bakın

Bronchiectasis Due to a Rare Cause

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Öz

Bronşektazi, bronşların kalıcı dilatasyonu ve akciğerin fibrozisi ile karakterize kronik bir akciğer hastalığıdır. Değişik etiyolojik faktörlere ikincil olarak geliştiği için, cerrahi kararı vermeden önce dikkatli bir değerlendirme çok önemlidir. Bu sunuda bronşektazinin nadir bir nedeni sunulmuş olup, bu hastalarda bronkoskopinin öneminin altı çizilmiştir.

Anahtar Kelimeler

Bronşiyal Hastalık; Bronkoscopi; Fistül (Trakeoözofajial)

Abstract

Bronchiectasis is a chronic lung disease that is characterized by permanent dilatation of the bronchi and fibrosis of the lung. Because it is secondary to different etiological factors a careful evaluation is crucial before surgical decision making. Herein a rare cause of bronchiectasis is reported, underlining the importance of bronchoscopy for these patients.

Keywords

Bronchial Disease; Bronchoscopy; Fistula (Tracheoesophageal)

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Introduction

Bronchiectasis is a chronic lung disease that is characterized by permanent dilatation of the bronchi and fibrosis of the lung [1]. Although many patients seem to have no associated disease leading to the development of bronchiectasis, there are many conditions, such as infections, alfa 1 antitrypsin deficiency, cystic fibrosis, immotile cilia syndrome, etc., that have been recognized as causing bronchiectasis. Other than these, a rare cause of bronchiectasis, tracheoesophageal fistula (TEF), discussed in this case report should be kept in mind.

Case Report

A 24 year-old-male, who was followed due to chronic and recurrent infections with the diagnosis of bronchiectasis, was referred to our department for the surgical management of bronchiectasis. He complained of large amounts of purulent sputum. Thorax computed tomography (CT) demonstrated cystic bronchiectasis at the middle lobe and basal segments of the right lower lobe (Figure 1a). Fiberoptic bronchoscopy, performed for a preoperative evaluation, pointed out an orifice at the posterior wall of the trachea leading us to think of a tractus such as a TEF (Figure 1b). Esophagoscopy and esophagography did not identify a fistula. When thorax CT was reevaluated retrospectively, the radiological finding was much more visible (Figure 1c). Therefore a surgical intervention was planned based on this underlying primary pathology (TEF). An oblique incision was performed from the left side of the neck. The fistula was demonstrated revealed with the guidance of intraoperative bronchoscopy (Figure 2a,b) and repair was done followed by a sternohyoid muscle flap transposition (Figure 2c). The postop-

erative period was uneventful. After the treatment of TEF, the primary pathological process, the patient remains under follow-up for a secondary residual disease.

Discussion

Bronchiectasis is a chronic, destructive lung disease that is frequently secondary to infective diseases. The indications for surgical resection are localized disease, failure of medical treatment, sufficient respiratory and cardiac reserve, frequent infections, presence of a chronic cough and hemoptysis, deterioration of the quality of life, a destroyed lobe, and sequelae [1,2]. But as in our case, if there is an underlying chronic primary pathology a surgical intervention may result in disaster. Therefore it is important to make a careful examination to fully investigate etiological factors before deciding on surgical management.

Bronchoscopic evaluation of bronchiectasis patients is necessary for the aspiration of secretion, to determine probable infective agents, and to inspect endobronchial masses or foreign bodies [3]. In this case, determining the orifice of occult TEF in adulthood saved the patient from a parenchymal loss and possible inoperability in the future.

The diagnosis of TEF in adults can be difficult and often delayed. A high level of suspicion is necessary for the diagnosis. The various endoscopic and radiological techniques are not entirely reliable in identifying a fistula [4]. Diagnosis is mostly done by esophagography-esophagoscopy. However, in small orifices, clinical evaluation and bronchoscopic findings should also be prominently considered, in the light of the contribution of this reported case.

The current study indicated that, for bronchiectasis patients, precise preoperative investigation and planning are important to identify even very rare causes before rendering an irreversible decision such as resective surgery. This will protect patients as well as pulmonologists and thoracic surgeons from potential disaster.

Competing interests

The authors declare that they have no competing interests.

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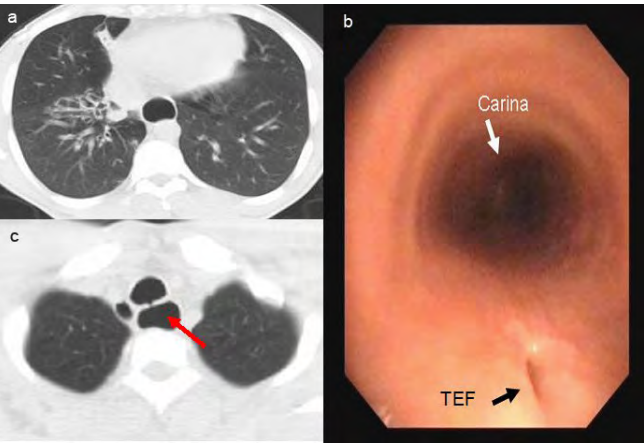


Figure 1. a. Thorax computed tomography section showing bronchiectasis at the middle and lower lobes of the lung. b. Bronchoscopic view of the orifice at the posterior wall of trachea, considered a TEF. c. Computed tomography section supporting our consideration of TEF.

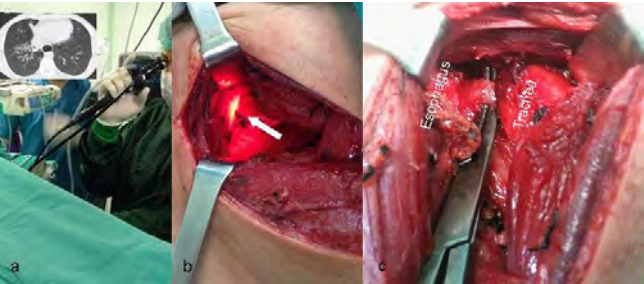


Figure 2. a. Intraoperative bronchoscopy was used as a guide to determine the orifice of the fistula. b. White arrow showing the illuminated trachea. c. Intraoperative view of the abnormal tractus between the esophagus and trachea.