A RARE CAUSE OF HEMOPTYSIS: ENDOBRONCHIAL HAMARTOMA

Case Report

NADİR BİR HEMOPTİZİ NEDENİ: ENDOBRONŞİYAL HAMARTOM

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ABSTRACT

67 years old male patient admitted to the hospital with symptoms of cough and hemoptysis. On chest X-ray homogenously increased density was observed in right paratracheal area. Chest CT revealed lesion obstructing right upper bronchus and right paratracheal lympadenopathy. Flexible fiberoptic brochoscopy was performed and vegetative, polipoid lesion with soft tissue density was observed extending from orifice of right upper lobe to right main bronchus. Then the patient underwent diagnostic thoracotomy and right upper lobectomy. Lobectomy material showed white tumor 1,5 cm in diameter, filling the bronchus. Microscopic diagnosis was endobronchial hamartoma with chondromatous areas.

Key words: Endobronchial hamartoma, hemoptysis

ÖZET

67 yaşında erkek hasta, öksürük, hemoptizi yakınması ile başvurdu. Akciğer grafisinde sağ paratrakeal alanda homojen dansite artışı, toraks bilgisiyarlı tomografisinde, sağ üst lob bronşunu daraltan kitlesel lezyon ve sağ paratrakeal lenfadenopati saptandı. Yapılan bronkoskopik incelemesinde sağ üst lob orifisinden ana bronşa doğru uzanım gösteren vejetan, polipoid, yumuşak doku niteliğinde lezyon görüldü. Hastaya diagnostik torakotomi, sağ üst lobektomi yapıldı. Lobektomi materyalinde, bronş ağzını dolduran 1,5 cm çapında beyaz renkli tümör görüldü ve mikroskopik tanısı kondromatöz alanlar içeren endobronşiyal hamartom bulundu.

Anahtar kelimeler: Endobronşiyal hamartom, hemoptizi

INTRODUCTION

Pulmonary hamartomas are rare benign tumors of the lung (1). Incidence of hamartomas was reported as 0,025%-0,32 and only 1.4 of hamartomas were located endobronchially remaining located within paranchyma (1-3). Most of pulmonary hamartomas are asymptomatic but endobronchial hamartomas can represent with severe

clinical conditions such as massive hemoptysis (4). Therefore, we present a case of endobronchial hamartoma with massive hemoptysis to highlight the need to be considered in the differential diagnosis

CASE REPORT

67 year-old male patient admitted with chronic cough and hemoptysis about 300 ml at once. He was retired from casting work and has a history of smoking 20 pk/year. On physical examination respiratory and other system findings were normal. CBC and biochemical values were normal. On chest X-ray homogenous increased density without a definitive border extending from right clavicula to the hilus was observed (Figure 1). CT scan revealed pathologic lymph node on right paratracheal area and mass lesion with air bronchograms originating and narrowing right upper lobe bronchus extending to the right paramediastinal area (Figure 2).

On fiberoptic bronchoscopy (FOB) polypoid lesion obstructing right upper lobe bronchus and extending to the main bronchus was observed. Pathologic examination of biopsy material was bronchial epithelium with metaplasia and chronic inflammation. Mediastinoscopy was performed and pathologic exam of lymph nodes 4R and 7 reported as reactive hyperplasia. Diagnostic thoracotomy and right upper lobectomy was performed. On macroscopic examination rigid, white tumoral mass obstructing right upper lobe bronchus was seen. On microscopy mature cartilage tissue was observed under bronchial mucosa and diagnosis of endobronchial hamartoma with chondromatous areas was ascertained (Figure 3). Surgical borders were negative. Patient recovered postoperatively and no recurrence observed in one-year follow-up.

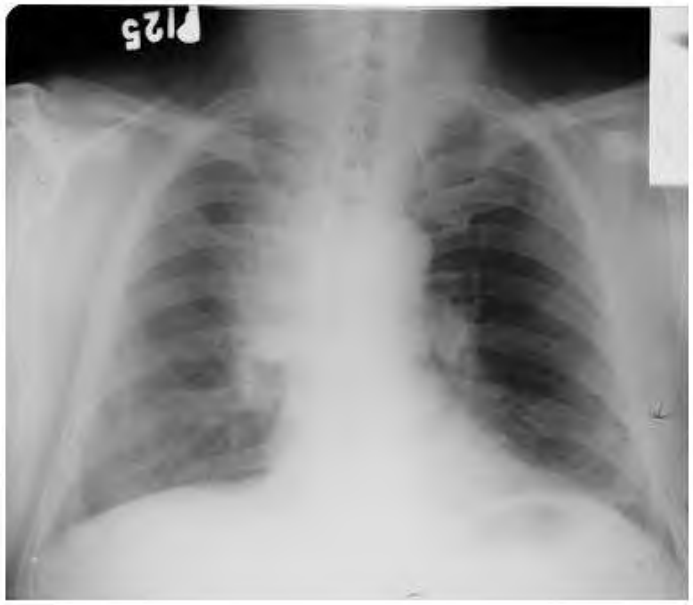

Fig1: PA chest X-ray revealed increased homogenuos dansity which is centrally located starting from the right clavicle level and extending through hilum.

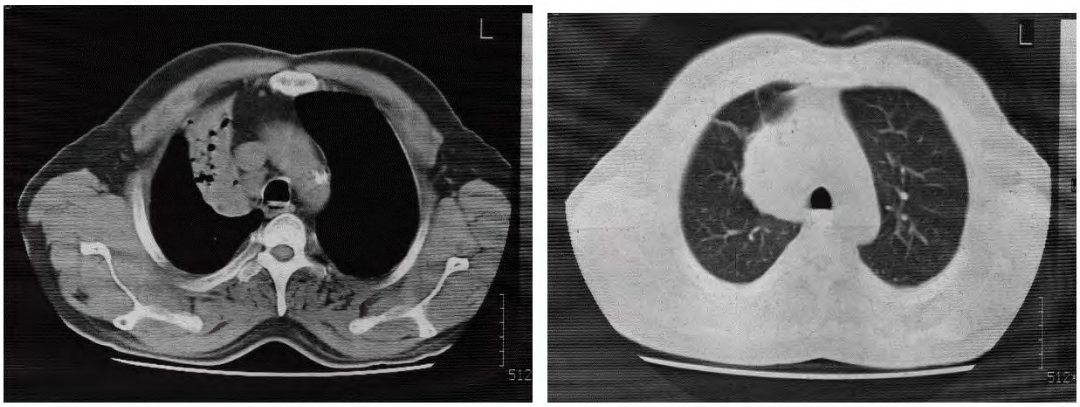

Fig2: Thorax BT revealed; right paratracheal lymphadenopathy and mass lesion inluding air bronchograms, narrowing the right upper lobe bronchus, and extending raght paramediastinal area.

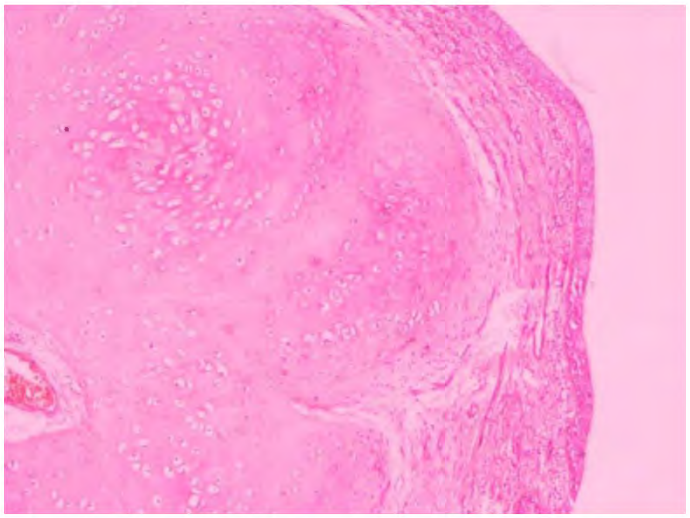

Fig3: mature cartilage areas belonging to hamartoma under the bronchial mucosa (H.E x 4).

DISCUSSION

Hamartomas are rare benign lung tumors with an incidence of 0.2% in autopsy specimens (2). Hamartomas are mostly seen in the ages of 50-60 and 2-5 more times in males than females (2-4).

According to localization hamartomas are classified in two groups as intraparanchymal and endobronchial (5). Most of the hamartomas located intraparanchimally, only 1.4% were found endobronchially (1-3). Because parenchymal hamartomas are in the periphery of the lung, they are detected radiologically incidentaly and most patients are asymptomatic (3). The mean age of the patients at presentation was found as sixth decade with male predominance (1,3,6). Our case was also 67 year old male patient.

Hamartomas consists of myxomatous tissue and fibroblastas, in the middle cartilage tissue sometimes with calcification surrounded by muscle, adipose tissue, bronchial glands and chronic inflammatory cells histopathologically (7). Although endobronchial hamartomas show similarities with paranchymal types morphologically, it can be seen as polypoid tumor holding with a narrow stalk to bronchial wall macroscopically (7).

Endobronchial hamartomas can present with symptoms such as dyspnea cough, sputum, fever associated with airway obstruction, (1-7). In a series of endobronchial hamartomas with 47 cases 80% of them were symptomatic, 37% of these patients were presented

with obstructive pneumonia and hemoptysis have been reported in 32% of patients (1). Our patient was presented with hemoptysis. Endobronchial hamartomas can be seen as atelectasis and obstructive pneumonia radiologically (2,7).

Because endobronchial hamartomas can not be differentiated from carcinomas with clinical and radiological findings, definitive diagnosis should be made histopathologically (8). Brochoscopy was recommended for differiantial diagnosis but definitive diagnosis and treatment can be performed succesfully through surgical resection (7). Adequate cure is provided by surgical excision because hamartomas are benign neoplasms and they have very low risk of malignancy and recurrence (1,6). In our case thoracotomy and lobectomy was performed surgically, endobronchial hamartoma was diagnosed histopathologically and there was no recurrence in one-year follow-up.

In conclusion, endobronchial hamartomas are benign neoplasms of the tracheobronchial tree that can cause hemoptysis.

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