

## Endobronchial hamartoma removed by rigid bronchoscope

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*Endobronchial hamartoma removed by rigid bronchoscope. A. A. Sahin, A. Aydiner, F. Kalyoncu, L. Tokgozoglu, Y. I. Baris.*

**ABSTRACT:** An endobronchial hamartoma of the right lower lobe was discovered in a 60 yr old female patient. She had been diagnosed and treated for chronic intractable bronchial asthma for more than 10 yrs. The endobronchial hamartoma was successfully removed with a rigid bronchoscope.

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Hamartomas of the lung are benign mesenchymatous cartilage containing tumours. These are classified as intrapulmonary (parenchymal) or intrabronchial hamartomas [1-4]. Parenchymal hamartomas are usually asymptomatic and present radiologically as a coin lesion. Patients with endobronchial hamartoma frequently present with the clinical and radiological features of bronchial obstruction.

We describe a rarely encountered endobronchial hamartoma in a person who presented with features of chronic obstructive lung disease. It was excised by a rigid bronchoscopy.

### Case report

A 60 yr old nonsmoker woman was admitted with a 6 yr history of progressive shortness of breath and a 10 year history of recurrent episodes of pneumonia and lung abscess. She had been admitted many times to different hospitals with the diagnosis of chronic intractable asthma and treated with bronchodilators.

On admission, the patient was dyspnoeic, afebrile, with a blood pressure of 180/105 mmHg. Physical examination of the chest revealed decreased ventilation of the right lower field and rhonchi which were associated with prolonged expiration. The chest X-ray showed increased bronchovascular shadows and atelectasis of the right lower lobe. Urine analysis and blood tests were reported to be normal. Sinus tachycardia was noted in her ECG.

Rigid bronchoscopy under general anaesthesia disclosed a polypoid mass obstructing the middle and lower lobar bronchi. The tumour was resected with the bronchoscope. A mild pneumothorax developed on the right side and was treated with underwater tube drainage. Her pulmonary symptoms dramatically improved

and she was discharged with full recovery. The patient has been followed closely since her surgical procedure one year ago, and she has had no serious problems. Histologic examination of the removed tumour was reported as cartilage-containing mesenchymal tumour, hamartoma.

### Discussion

Patients with the endobronchial hamartoma are often symptomatic with cough, wheezing, haemoptysis and dyspnoea. Nearly all of the previously reported cases had signs of bronchial obstruction in combination with atelectasis and/or pneumonia. They were diagnosed as chronic obstructive lung disease and recurrent pneumonia. The present case had been treated as intractable bronchial asthma for more than 10 yrs.

VAN DEN BOSCH *et al.* [1] reviewed cases of 154 pulmonary hamartomas and found 142 (92%) parenchymal hamartomas and only 12 (8%) endobronchial hamartomas. ARRIGONI *et al.* [2] analysed 130 benign lung tumours from the Mayo Clinic. Seventy-seven percent were hamartomas, and three percent of the hamartomas were endobronchial. BATESON [3] collected 457 reported cases of hamartoma, 89 of which were endobronchial. Parenchymal, endobronchial or multiple pulmonary hamartomas have also been reported elsewhere [4]. It is currently accepted that intrapulmonary hamartomas develop from the peripheral bronchi, whereas endobronchial hamartomas arise in the major bronchi.

The diagnosis of endobronchial hamartoma is easily accomplished by bronchoscopy. Several reports also show successful removal by endoscopy [1, 5]. However, more frequently, endobronchial hamartomas have been excised *via* bronchotomy [6]. Another effective and easily performed technique is cryotherapy [7, 8]. In

humans, bronchoscopic cryotherapy (using liquid nitrogen) has shown promise in the local control of bronchial tumours [7]. Animal experiments have shown that cryotherapy within the bronchial tree or trachea is safe [8]. Endobronchial laser therapy may also be used [9, 10].

Early endoscopic examination is important for the detection of these tumours, before the lung distal to the obstruction is irreversibly destroyed. Since the risk of lung cancer may be higher in patients with hamartoma than in the general population, immediate surgical treatment is recommended [11]. If irreversible lung damage has occurred because of chronic obstruction and suppurations, pulmonary resection may be indicated [12].

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*Hamartome endo-bronchique réséqué par le bronchoscope rigide.* A. Altay Sahin, A. Aydiner, F. Kalyoncu, L. Tokgozoglul, Y. Izzettin Baris.

RÉSUMÉ: Un hamartome endo-bronchique a été découvert chez une femme de 60 ans au niveau de la bronche lobaire inférieure droite. Depuis plus de 10 ans, cette femme était traitée pour un asthme bronchique chronique irréductible. L'hamartome endo-bronchique a pu être réséqué avec succès au moyen d'un bronchoscope rigide. *Eur Respir J.*, 1989, 2, 479–480.