
Surgical management of endobronchial hamartoma

Sir,

Endobronchial chondroid hamartomas are rare benign tumors of the lung. Two types of hamartomas have been described based on location of tumor: intraparenchymal (90%) and endobronchial (10%).^[1] Peripherally placed tumors are usually asymptomatic and detected incidentally, but centrally placed tumors in large bronchus are mostly symptomatic. Endobronchial hamartoma has been treated with endoscopic management as well surgical management. We present a case of endobronchial chondroid hamartoma successfully managed with surgery.

A 26-year-old gentleman presented with complaints of dyspnea on exertion for 2½ years with occasional wheeze. He also complained of the right-sided chest discomfort on exertion. He was initially managed as a case of bronchial asthma with bronchodilators. In view of persistence of symptoms, he underwent computed tomography (CT) chest. In CT scan, he was diagnosed

to have mass lesion in the left main bronchus [Figure 1]. Fiber-optic bronchoscopy was done which revealed an endobronchial lesion in the left main bronchus [Figure 2]. Biopsy, however, was inconclusive, and therefore, a repeat biopsy with a larger chunk of tissue was done which also was inconclusive. The lesion was purely endobronchial, and in one of the biopsies, a suspicion for carcinoid tumor was raised on account of round cells seen in the specimen. In view of the inconclusive biopsy, despite multiple attempts, decision was taken to surgically resect the lesion. General anesthesia was instituted and lung isolation was achieved using right-sided double-lumen endotracheal tube. A mediastinoscopic tracheal mobilization was done with patient in supine position. The position was then changed to the right lateral position, and a left posterolateral thoracotomy was done through the 4th intercostal space. Intercostal muscle flap was raised from the same space for anastomosis reinforcement. Pleural cavity was explored for any effusion or deposits which was negative. Left main bronchus was dissected and looped. The descending thoracic aorta was looped

and retracted posteriorly. A bronchotomy was done on the posterior wall of the left main bronchus approximately 1 cm away from carina. A 2.0 cm × 1.5 cm tumors arising from posterolateral wall of the left main bronchus was noted. Left main bronchus was divided proximally approximately 0.5 cm away from the carina and distally beyond the inferior extent of the tumor with grossly negative margins. Additional tissue was resected on both ends to achieve negative margin, resection, and the same was confirmed on intraoperative frozen section analysis of the resected margin. This sleeve of the tumor-containing portion of the left main bronchus was resected. The two ends of the left main bronchus were then anastomosed 3-0 PDS sutures [Figure 3]. Anastomosis was checked for air leak and none was noted. Previously mobilized intercostal muscle flap was used to cover the anastomosis. The patient was extubated on table under bronchoscopic guidance. Bronchoscopy revealed patent anastomosis with good lumen, and normal vocal cord movement. His chest drain was removed on the 2nd postoperative day. His postoperative period was uneventful. A bronchoscopy done at 6 months was normal [Figure 4].

With incidence of 0.25%–0.32%, pulmonary hamartoma is the most common benign tumor of the lung and accounts for 6% of solitary pulmonary nodules.^[2] Hamartoma is a benign tumor-like nodule composed of an overgrowth of mature cells and tissues normally present in the affected part but often with one element predominating. Endobronchial hamartoma usually contains cartilage (50%), adipose tissue (33%), and fibroblastic tissue (8%).^[3] Endobronchial hamartoma is usually symptomatic, and patients may present with various symptoms including hemoptysis and obstructive pneumonia. The diagnosis of asthma is often made mistakenly because the patients may present with dyspnea, cough, and wheezing.^[4] The symptoms of such lesions are frequently indistinguishable from those of a malignant lesion. Chest X-ray and CT scan may reveal collapse, obstructive pneumonia and air entrapment within the lungs and/or an endobronchial space-occupying lesion.^[5] Bronchoscopy is most helpful in diagnosis and management of endobronchial tumors. Bronchoscopy can define the location of tumor and from which biopsy can be taken and in cases of confirmed diagnosis of tumor may

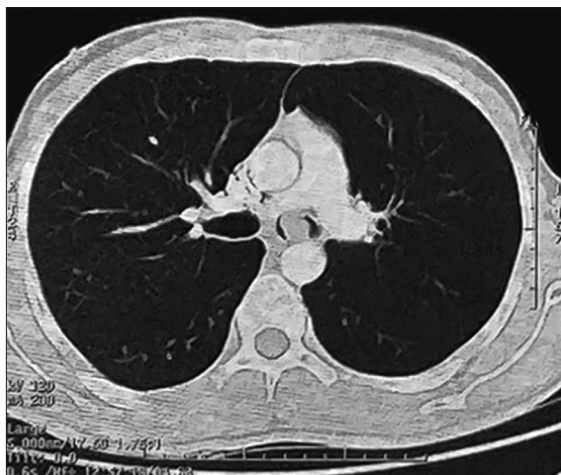


Figure 1: Computed tomography scan showing endobronchial mass in the left main bronchus

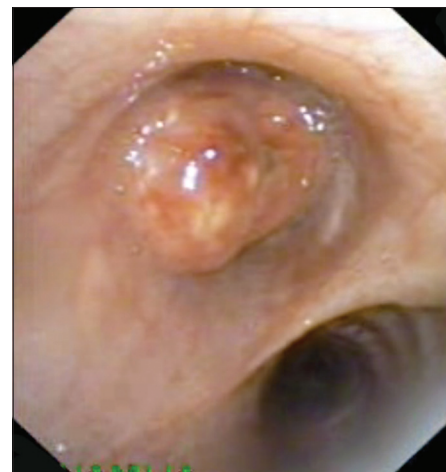


Figure 2: Bronchoscopic showing an endobronchial lesion in the left main bronchus partial occluding lumen

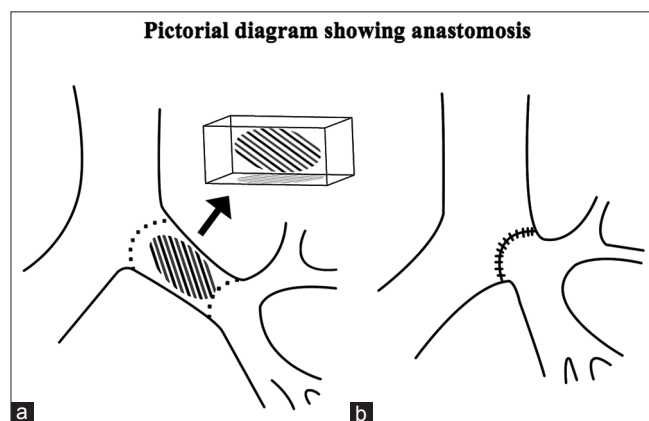


Figure 3: Diagram (a) shows resected part of left main bronchus with tumour . Diagram (b) shows anastomosis after resection

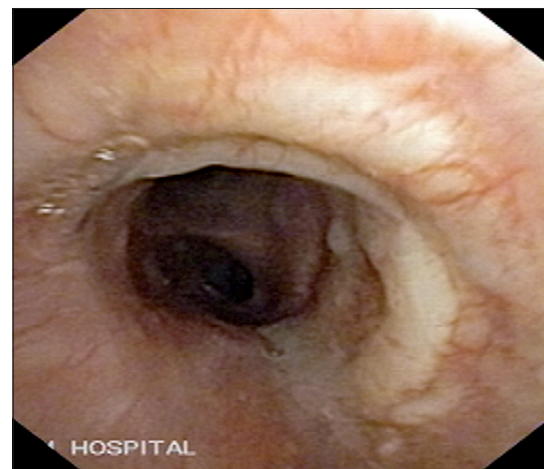


Figure 4: Follow-up bronchoscopy showing normal bronchial lumen

be used as therapeutic option in histologically proven cases of hamartoma. The management of endobronchial hamartoma must be individualized according to the characteristics of each patient and the location of the tumor. Bronchoscopic electrocautery resection is used in patients where malignancy is not suspected and lesion is small. Surgical intervention is warranted when lesion could not be differentiated from malignancy and in cases with recurrence after initial bronchoscopic intervention.^[6] In our case, multiple attempts at biopsy were inconclusive, and therefore, surgery was warranted. It must be emphasized that wherever possible preoperative histological diagnosis should be obtained, and in cases where surgery is indicated, every effort should be made toward lung preservation for this benign disease.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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