Case Reports

Endobronchial Lipoma Accompanied with Primary Lung Cancer: Report of a Case

MITSUHIRO KAMIYOSHIBARA1, KAZUHIRO SAKATA1, YOSHIKI OTANI2, OSAMU KAWASHIMA1, TORU TAKAHASHI2, and YASUO MORISHITA2

1 Department of Thoracic and Cardiovascular Surgery, Maebashi Red Cross Hospital, 3-21-36 Asahi-cho, Maebashi, Gunma 371-0014, Japan
2 Second Department of Surgery, Gunma University School of Medicine, Maebashi, Japan

Abstract
A 72-year-old man was found to have an endobronchial lipoma accompanied with primary lung cancer. A left lower lobectomy with a mediastinal lymph node dissection and a sleeve resection of the lingual bronchus with telescoping bronchial anastomosis were done. The pathological staging was T1N2M0, stage IIIA. A histological examination showed well-differentiated squamous cell carcinoma in segment 10, in addition to the presence of mature adipose tissue which was diagnosed to be a benign endobronchial lipoma originating from the lingual bronchus. The postoperative course was uneventful and the patient was discharged 13 days after the operation. However, he had a recurrence in the subcarinal lymph node, and died 8 months after surgery.

Key words Endobronchial lipoma · Primary lung cancer · Bronchoplasty

Introduction
Endobronchial lipomas are uncommon and account for 0.1% of all pulmonary tumors, and 4.6% of benign tumors of the lung. We herein present a case of endobronchial lipoma accompanied with primary lung cancer.

Case Report
A 72-year-old man was admitted to our hospital in May 2000 for an investigation of an infiltrating shadow in the left lower field on his chest roentgenogram (Fig. 1). He complained of fever and cough. Routine laboratory tests showed no abnormality. A chest computed tomogram demonstrated obstructive pneumonia in segment 10. A bronchoscopic examination revealed a yellowish polyoid tumor with smooth surface at the orifice of the lingual bronchus (Fig. 2a), and a whitish and nodular tumor which caused nearly a complete obstruction of the B10 (Fig. 2b). Transbronchoscopic lung biopsy yielded a diagnosis of lipoma in the lingual bronchus and squamous cell carcinoma in B10. A systemic examination revealed no distant metastasis, and the lung cancer was diagnosed as cT2N0M0, stage IB.

We therefore scheduled a one-stage operation for endobronchial lipoma and lung cancer in August 2000. A left-sided posterolateral thoracotomy was performed through the fifth intercostal space. Fibrous adhesions were observed on the thoracic wall and the diaphragm. A left lower lobectomy with a mediastinal lymph node dissection was performed. In addition, the lingual bronchus was resected 10 mm from the spur between upper and lingual division bronchus, and thereafter a sleeve resection of the lingual bronchus with telescoping bronchial anastomosis was done (Fig. 3).

In a gross examination of the resected lower lobe, a grayish-white mass was 2 cm in maximum diameter, which obstructed B10 and invaded the surrounding lung parenchyma. The lung showed obstructive pneumonia mainly in segment 10. Histologically, there was a well-differentiated squamous cell carcinoma (Fig. 4a) with subcarinal lymph node involvement. The pathological staging was T1N2M0, stage IIIA. The mass in the lingual bronchus disclosed a yellowish-white, oval, well-circumscribed mass measuring 0.8 cm in diameter. A histological examination showed mature adipose tissue diagnosed as a benign endobronchial lipoma originating from the lingual bronchus (Fig. 4b). The mass originated from the submucosal layer of the bronchus.

The postoperative course was uneventful without any complications, and the patient was discharged on the
13th day after the operation. The patient had a recurrence in the subcarinal lymph node, and died 8 months after surgery.

Discussion

Although lipomas are common benign neoplasms in soft tissue, endobronchial lipoma is rare, and only 60 cases have been reported in the English literature. From a review of such cases, it appears that endobronchial lipoma is the most common in the sixth decade of life. It arises from the fatty tissue normally found in both the mucosal interstitium and the tissue external to the cartilage plates. This benign tumor occurs most frequently in the main-stem and lobar or segmental bronchus. The symptoms depend on the degree of bronchial obstruction. The initial symptoms are cough, chest pain, and hemoptysis. The present case first demonstrated cough and pneumonia, but these clinical features may originate from squamous cell carcinoma in segment 10 because of the size of the lipoma in the lingual bronchus.

Yokozaki et al. reviewed the treatment of endobronchial lipoma in 58 cases: 35 (60%) were resected with a lobectomy or pneumonectomy, 17 (30%) with bronchoscopic procedures, while the remaining 6 (10%) had a bronchial resection. Various endoscopic resection