



An unusual cause of a bronchopleural fistula

Dongyoon Keum¹, Mincheol Chae¹, Ilseon Hwang², and Hyun Jung Kim³

Departments of ¹Thoracic and Cardiovascular Surgery and ²Pathology, ³Division of Pulmonary and Critical Care Medicine, Department of Internal Medicine, Dongsan Hospital, Keimyung University School of Medicine, Daegu, Korea

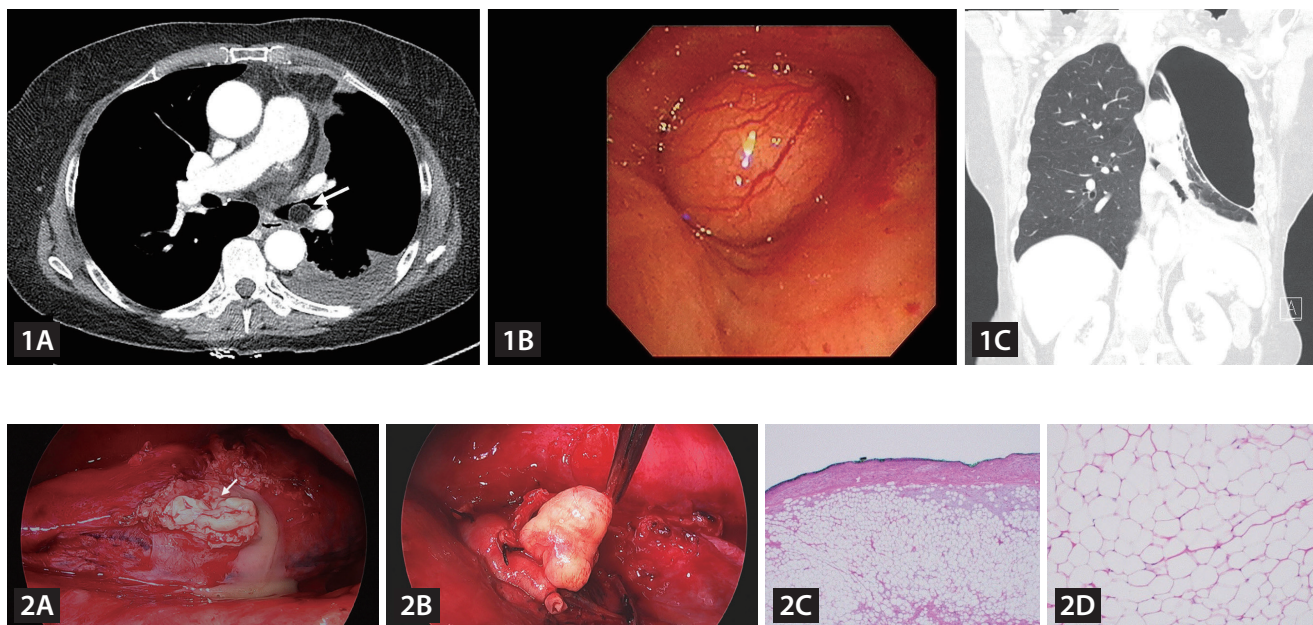


Figure 1. (A) Chest computed tomography (CT) revealed an endobronchial nodule with fat in the left main bronchus (arrow) and parapneumonic effusion on the left side. (B) Bronchoscopy revealed a well-circumscribed, firm, rounded endobronchial nodule in the left main bronchus. (C) Hydro-pneumothorax was evident on the left in the chest CT scan.

Figure 2. (A) Intraoperatively, an 1.0-cm-long bronchopleural fistula with pus discharge (arrow) was evident in the superior segment of the lower lobe. (B) A homogeneous and narrow-based yellowish mass was deeply embedded into the wall of the left main bronchus. (C) Adipose tissue was observed under the bronchial epithelium (Hematoxylin and Eosin [H&E], $\times 40$). (D) Mature adipose tissue without any cellular atypia was noted (H&E, $\times 200$).

A 70-year-old woman was admitted to the hospital with left pleuritic chest pain for 3 days. She complained of a cough, sputum, and chilling sensation but no dyspnea. She had no history of smoking or trauma. Pneumonia with a parapneumonic effusion and endobronchial nodule were evident on the chest computed tomography and flexible bronchoscopy (Fig. 1A, B). Despite receiving intravenous antibiotics and undergoing toilet bronchoscopy, the patient's fever persisted. A pneumothorax was also detected, which recurred despite a closed thoracostomy (Fig. 1C). To address the obstruction of the left main bronchus, which was causing prolonged obstructive pneumonia and barotrauma,

the patient underwent surgery. Thoracoscopically, the left lower lung was totally consolidated and purulent pus with a thickened pleura was noted (Fig. 2A). An endobronchial mass was removed through the bronchus (Fig. 2B). We performed a lobectomy of the left lower lung and the final histological diagnosis was endobronchial lipoma (Fig. 2C, D).

Endobronchial lipomas are extremely rare and benign (0.1–0.5% of all lung tumors). Bronchoscopic intervention can be effective in preserving the lung function. However, despite the lipoma being benign, our patient required a lobectomy due to post-obstructive pneumonia intractable to

medical treatment and irreversible lung damage. It is important to tailor the treatment according to the patient's clinical condition.

Received : February 5, 2023

Revised : February 17, 2023

Accepted : March 6, 2023

Correspondence to

Hyun Jung Kim, M.D., Ph.D.

Tel: +82-53-258-4519

E-mail: khj82827@kmu.ac.kr

<https://orcid.org/0000-0002-1878-1111>

CRedit authorship contributions

Dongyoon Keum: visualization, writing - original draft, writing - review & editing; Mincheol Chae: writing - review & editing; Ilseon Hwang: formal analysis, visualization, writing - original draft; Hyun Jung Kim: conceptualization, funding acquisition, writing - original draft, writing - review & editing

Conflicts of interest

The authors disclose no conflicts.

Funding

This research was supported by the Bisa Research Grant of Keimyung University in 2021.