Giant parenchymal bronchogenic cyst mimicking hydropneumothorax

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Bronchogenic cysts are believed to result from abnormal budding of the tracheal diverticulum between the third and sixth weeks of gestation and consequently may be mediastinal or intrapulmonary in location.1,2

In the adult, bronchogenic cysts are frequently asymptomatic and present as an incidental finding in the chest roentgenogram.1,3 We present a patient with a giant parenchymal bronchogenic cyst that appeared as hydropneumothorax on chest radiograph and CT. The unusual cause and the interesting clinical course of asymptomatic bronchogenic cyst are described.

Clinical Summary

A 66-year-old asymptomatic man was found to have a hydropneumothorax on routine chest radiograph for operation of retina decolman (Figure 1). A left tube thoracostomy was performed. Despite tube thoracostomy suction, there was not an air leak, and the chest radiograph showed no pulmonary expansion. Chest CT scan revealed a hydropneumothorax in the left hemithorax (Figure 2). Through a left posterolateral, muscle-sparing thoracotomy, a thin-walled cyst, 18 × 14 cm in diameter with clear fluid, was observed in the upper lobe parenchyma. There was a communication with the tracheobronchial tree, and the cyst was removed completely. The postoperative course was uncomplicated, and the patient was discharged on day 6 and was asymptomatic at the 14-month follow-up. Histopathologic examination showed a cyst lined by pseudostratified respiratory epithelium with only a thin membranous underlining. This histologic feature led to the diagnosis of bronchogenic cyst.

Discussion

Bronchogenic cysts account for approximately 5% to 10% of all primary mediastinal masses.4,5 They are found most frequently along the tracheobronchial tree in the mediastinum or within the lung parenchyma.2 Rarely, the cysts have occurred in other locations, including cutaneous and subcutaneous tissues, neck, pericardium, diaphragm, abdomen, and the intramedullary part of the spine.6

Maier7 categorized bronchogenic cysts into 5 groups according to their location: paratracheal, carinal, hilar, paraesophageal, and miscellaneous. The paratracheal, carinal, and hilar groups are usually asymptomatic.5,6 Histopathologically, they are thin-walled masses lined with ciliated respiratory epithelium containing cartilage and bronchial glands. Typically, bronchogenic cysts are smooth and spherical, ranging from 2 to 12 cm in diameter.2,3 In the patient presented here, there was an asymptomatic, giant bronchogenic cyst (18 × 14 cm in diameter) in the upper lobe parenchyma.
Successful treatment of huge chronic expanding hematoma after thoracoplasty

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C hronic expanding hematoma in the chest is known to be a specific type of chronic empyema. Four cases of chronic expanding hematomas after thoracoplasty have been reported in Japan. As far as I have been able to determine, no such cases have been reported in other countries. Incomplete treatment for tuberculosis, such as thoracoplasty, is considered to be one of the origins of this disease. Here I describe the successful treatment of a patient with chronic expanding hematoma after a thoracoplasty.

Clinical Summary
A 79-year-old man was admitted with a chest wall swelling. Fifty-two years earlier, when he was 27 years old, he had undergone thoracoplasty for the treatment of tuberculosis. A year earlier a tumor had been detected in the right axilla, which had gradually protruded. For the purpose of more detailed examination, he was transferred to my hospital. Physical examination revealed a large tumor, 30 × 10 × 10 cm in size, from the right axillary region to the anterior chest region, with skeletal deformity and operative scars due to the thoracoplasty. Chest roentgenogram showed a well-defined complete opacification in the right upper thorax and right upper skeletal deformities due to the thoracoplasty. Magnetic resonance imaging revealed a heterogenous mass growing from the adjacent of remained ribs to the anterior chest (Figure 1). On needle biopsy, there was only a fibrous connective tissue with fibrin infiltrated with a few small lymphocytes and neutrophils. With the permeable values of hemodynamics and respiratory functions, his general condition also indicated that he could tolerate the operation.

The tumor was encapsulated in part by connective tissue and presented as hydropneumothorax on chest radiograph. Definitive tissue diagnosis is usually available only after surgical excision. The possibility of bronchogenic cyst should be taken into consideration.

References