



DIAGNOSTIC AND TREATMENT OF A BRONCHOPULMONARY SEQUESTRATION- A CASE REPORT

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Objective:

Introduction: Pulmonary sequestration represents a non-functional lung tissue that has no communication with the tracheobronchial tree and receives arterial blood supply from the systemic circulation, usually the lower thoracic or upper abdominal aorta. There are two types of pulmonary sequestration: intralobar (75%) and extralobar (25%). Intralobar sequestration (IS) is located within a normal lung lobe, mostly the left lower lung lobe, and lacks its own visceral pleura. Extralobar sequestration (ES) is located outside the normal lung, occasionally below the diaphragm, and has its own visceral pleura. The clinical presentation depends on the lesion's type, size, and location. In contrast to ES, IS often presents with a repeated lung infection, fever, cough, and sometimes hemoptysis or chest pain. Diagnostic procedures include chest X-ray, MSCT, MRI, and doppler ultrasonography. The final diagnosis is made by pathological examination after surgical resection.



Case report: We present a case of a 46-year-old female patient with an intralobar left lower lung lobe sequestration. A pulmonologist treated the patient for recurrent pneumonia and performed additional examinations. PET/CT scan revealed a lung consolidation of low metabolic activity (SUVmax 2,4), located in the left lower lung lobe paramediastinally and paravertebrally. Arterial blood supply was coming from an abdominal aorta or, more precisely, a celiac trunk. Bronchoscopy, along with a cytological analysis, revealed no malignant elements. Because of an FDG-positive lymph node in the right axilla (SUVmax 3,5), a cytological puncture was made; the node was benign. Then a left lower lung lobectomy was performed through a muscle-sparing thoracotomy. A pathohistological finding showed inflammatory changes with necrotic elements and pus collection. The postoperative course was uneventful and the patient was discharged from the hospital on the 6th postoperative day. Regular controls were made one and six months after surgery and then once annually with satisfactory results and no recurrent pneumonia. The patient returned to normal everyday activity without restriction.

Conclusion: Surgical resection is indicated for all symptomatic patients. Lung lobectomy or segmental resection is usually performed via muscle-sparing thoracotomy or video-assisted thoracoscopic surgery (VATS). Resection is also advised in asymptomatic patients with a high risk of developing complications and extensive lesions with multifocal or bilateral cysts. Observation can be recommended for asymptomatic patients with small, non-cystic lesions or asymptomatic patients with a high risk of developing perioperative complications. The long-term prognosis is excellent, and patients return to normal activities soon after surgical resection.

Keywords: intralobar sequestration, extralobar sequestration, recurrent pneumonia

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