



DIAGNOSTIC CHALLENGES AND MULTIDISCIPLINARY APPROACH IN THE MANAGEMENT OF PLEUROPULMONARY TUMORS-A CASE REPORT

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Background:

Introduction: Pleuropulmonary masses include a wide range of benign and malignant pathologies. This poses a significant diagnostic challenge. The similarity in radiological appearances between different types of tumors underscores the limitations of imaging studies and the importance of histopathological analysis. This report underlines the necessity for a comprehensive, multidisciplinary approach in the management of these cases.

Conclusion:

Conclusion: Pleuropulmonary tumors represent a heterogeneous group of neoplasms affecting the lung parenchyma and pleura. These tumors can be benign or malignant, primary or secondary, and their presentation can range from asymptomatic incidental findings to symptomatic cases with significant morbidity. Intrathoracic schwannomas are rare benign



nerve sheath tumors that can arise either from the intercostal or vagus nerve, presenting as a chest wall or pleural mass.

Solitary fibrous tumors are rare mesenchymal neoplasms that can range from benign to highly malignant. Despite their differing origins and clinical implications, solitary fibrous tumors and schwannomas may present similarly in imaging studies. This similarity reinforces the necessity for a multidisciplinary approach in order to navigate the diagnostic challenges properly and tailor an effective management plan.

Keywords: Pleuropulmonary masses, solitary fibrous tumor, schwannoma

Case:

Case report:

Case 1



A 73-year-old male presented with a nodal lesion in the left hemithorax, verified via chest X-ray following a COVID-19 infection. PET/CT suggested a low-grade metabolic activity tumor of the parietal pleura, indicative of a low malignant potential. Transthoracic biopsy under CT guidance revealed no definitive diagnosis. Surgical resection via UVATS was indicated.

During intraoperative exploration, the mass turned out not to originate from the pleura, but, in fact, it was a peduncular tumor that originated from the left lower lung lobe. The tumor was resected with clear margins. Histopathological examination confirmed a solitary fibrous tumor, categorized as an intermediate-risk tumor due to its size, patient age, mitotic activity, and necrosis presence. Postoperative recovery was uneventful, and the patient was discharged with routine follow-up recommendations.

Case 2

A 34-year-old male with a history of a fall and left forearm fracture was incidentally found to have a left hemithorax tumor on radiography. Subsequent MSCT scans described a subpleural mass with characteristics suggesting a variety of differential diagnoses, including a localized pleural effusion, round pneumonia, fibro-lipoma and pleural fibroma. Surgical intervention via UVATS was performed, and the lesion was resected. The histopathological analysis identified the mass as a schwannoma. The postoperative period was smooth, and the patient was advised on standard post-surgical care.