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Pulmonary Sarcoidosis Presenting as Pseudo-Tumoral Lesions: A Case Report

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Abstract | **Case Report**

Sarcoidosis is a multisystem granulomatous disease of unknown etiology that predominantly affects the lungs and intrathoracic lymph nodes [1,2]. We present a rare case of pulmonary sarcoidosis with pseudo-tumoral features mimicking malignancy. Histopathological confirmation remains crucial to differentiate sarcoidosis from other granulomatous or neoplastic conditions.

Keywords: Sarcoidosis, pulmonary mass, mediastinal lymphadenopathy, corticosteroid therapy.

INTRODUCTION

Sarcoidosis is a systemic granulomatous disease of unknown cause that can involve multiple organs, with thoracic involvement being the most common [1,2,9]. The diagnosis is based on compatible clinical and radiological findings and confirmed by the presence of non-caseating epithelioid and giant cell granulomas on histopathology. Although typical radiologic features are well known [3], atypical presentations such as pulmonary mass-like lesions can raise concern for malignancy. We report a case of pulmonary sarcoidosis presenting as pseudo-tumoral lesions, a rare and diagnostically challenging manifestation.

CASE REPORT

A 45-year-old woman with a history of pulmonary tuberculosis (2000 and 2018) and renal oxalocalcic lithiasis treated by extracorporeal lithotripsy in 2014 was admitted for dyspnea (mMRC stage II) and mild hemoptysis evolving for one month, without fever or general symptoms. Physical examination was unremarkable. Chest X-ray revealed bilateral pulmonary masses (Figure 1). Chest CT scan demonstrated multiple, well-defined, rounded, dense bilateral consolidations, some with irregular borders, associated with mediastinal lymphadenopathies (4R: 12×16 mm; 2R: 11×20 mm) (Figure 2). Laboratory investigations showed no inflammatory syndrome or metabolic abnormalities. GeneXpert and sputum cultures for Mycobacterium tuberculosis were negative. Bronchoscopy was normal. A transthoracic biopsy revealed non-caseating epithelioid and giant cell granulomas, confirming the diagnosis of sarcoidosis. Pulmonary function tests showed a mild restrictive defect, and ophthalmologic examination revealed anterior uveitis. Given the functional impairment and extrapulmonary involvement, systemic corticosteroid therapy was initiated, with favorable clinical and radiological evolution.

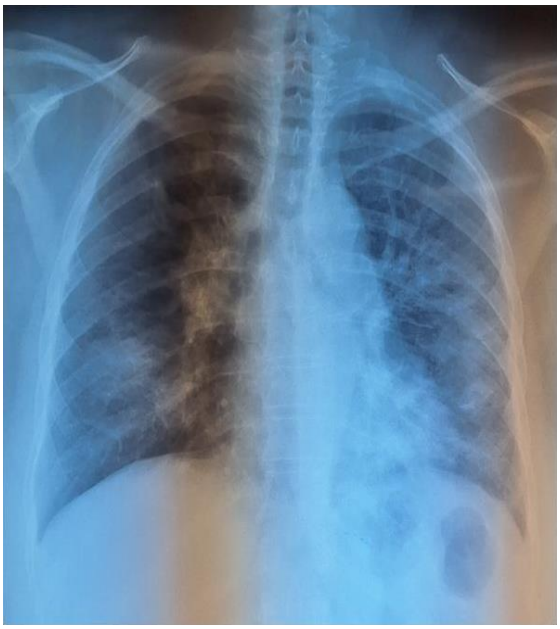

Figure 1: Chest X-ray showing bilateral pulmonary masses

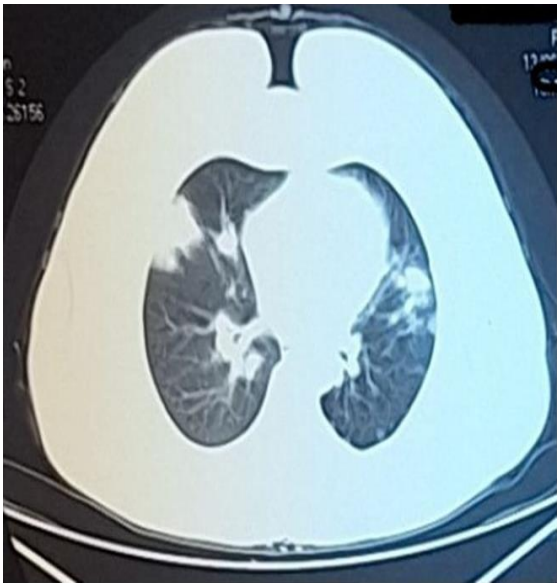

Figure 2: Chest CT scan showing multiple well-defined bilateral consolidations with mediastinal lymphadenopathy

DISCUSSION

Pulmonary and mediastinal involvement represents the most frequent manifestation of sarcoidosis [1,2]. However, atypical presentations such as pseudo-tumoral sarcoidosis are rare and may mimic neoplastic or infectious diseases [3,5,6]. The differential diagnosis includes metastases, lymphoma, and tuberculosis. Histological confirmation remains essential to exclude malignancy [7]. Radiologically, pseudo-tumoral sarcoidosis can appear as bilateral, variable-sized nodules that may coalesce to form mass-like lesions [3,6]. CT imaging often demonstrates confluent nodules with poorly defined margins and peripheral predominance. Serum ACE levels may be normal, and the disease can remain clinically silent despite extensive lesions [4]. Bronchoscopic or transthoracic biopsies usually demonstrate non-caseating granulomas, confirming the diagnosis [8]. Treatment is indicated in symptomatic patients or in those with extrapulmonary involvement, with corticosteroids being the mainstay of therapy [2,10]. Spontaneous resolution can occur, but relapses after steroid withdrawal are not uncommon [10].

CONCLUSION

Sarcoidosis can rarely present as pseudo-tumoral pulmonary lesions mimicking malignancy. Histopathological confirmation is crucial for diagnosis and to prevent unnecessary invasive procedures. Given its often benign course, corticosteroid therapy should be reserved for symptomatic patients or those with extrapulmonary involvement.

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