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Pulmonary Cavitary Lesions Revealing a Rare Tumor

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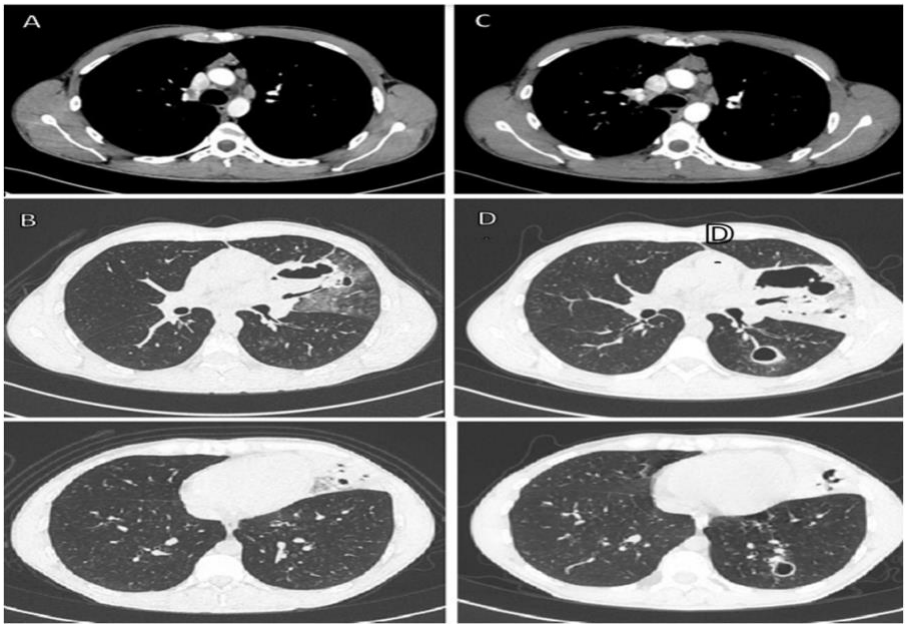

Figure 1: A+B: Chest CT scan showing adenomegalies in anterior mediastinal chain **(A)** and a cavitary and irregular consolidation in the lingular region of the lung, surrounded by ground glass opacities **(B)**. **C+D:** Chest CT scan performed six months later, showing an increase in the size of the adenomegalies **(C)** and the persistence of the consolidation in the lingula, with an increase in the size of excavations within this area and the emergence of new excavated nodules in the lower left lobe **(D)**.

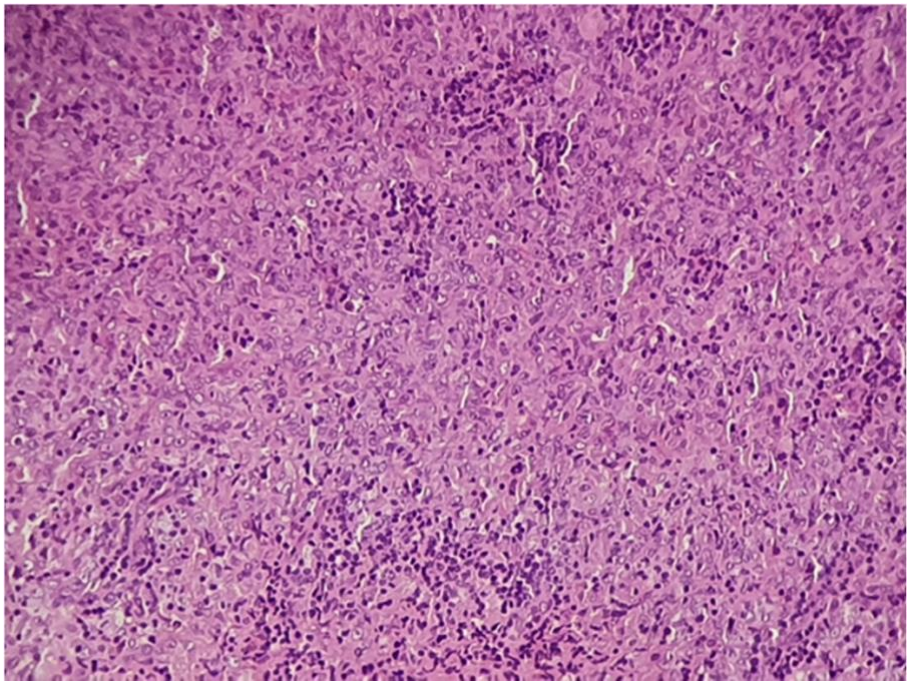

Figure 2: Pathological study revealing an undifferentiated tumour proliferation arranged in patches, masses and clusters, within a lymphoid stroma rich in lymphocytes.

Clinical Image

A 36-year-old man, previously healthy but with a 20-year smoking history, presented with a persistent six-month cough and blood-streaked sputum. He also experienced intermittent fever and fatigue. A chest X-ray revealed excavated, heterogeneous opacities in the left parahilar region. A chest CT scan further showed cavitary, irregular consolidation in the lingular lung area, with surrounding ground-glass opacities, nodules, and excavated nodules (Figure 1: A+B).

Initial discussed diagnoses included tuberculosis, aspergillosis, granulomatosis with polyangitis, or a lung tumor. Bronchoscopy revealed no abnormalities, and both bacilloscopic and mycological tests on bronchial fluid were negative. Bronchial biopsies showed inflammation, while immunological tests for vasculitis yielded normal results.

Despite not seeking medical attention for six months, the patient's condition did not improve. A follow-up chest CT, conducted six months later, showed persistent consolidation in the lingula, along with increased excavation size and the appearance of new excavated nodules in the lingula and an enlargement of mediastinal adenomegaly (Figure 1: C+D).

Surgical lung biopsy was decided. Exploration revealed extensive mediastinal infiltration and sub-aortic and hilar lymph nodes which were biopsied. Pathological examination confirmed the presence of an undifferentiated tumour proliferation within a lymphoid stroma rich in lymphocytes (Figure 2), specifically lymphoepithelioma-like carcinoma (LELC) with reactive lymph nodes Immunohistochemistry tests indicated positive cytokeratin, negative TTF-1, negative P40, and positive LMP1, supporting the diagnosis of LELC with associated EBV infection.

An immunohistochemical study found 80% PDL1-positive cells. Fluorescence in situ hybridization for ROS1 and ALK rearrangements was negative, and Next-Gen Sequencing showed a KRAS mutation (G13S).

LELC is a non-keratinizing carcinoma commonly found in the nasopharynx and foregut-derived organs like the stomach, thymus, and liver. Literature reports show approximately 56.22% in the nasopharynx, 21.32% elsewhere in the head and neck, and 7.83% in other body areas. Primary pulmonary LELC represents just 0.9% of all lung cancers [1]. It often resembles bronchial carcinoma, presenting as a solid lung tissue mass [2].

Keywords: Lymphoepithelioma-like carcinoma; Lung carcinoma; Cavity; Computed tomography

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