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Clinical Image

A Rare Diagnosis of a Cavitary Lesion Presenting With Hemoptysis

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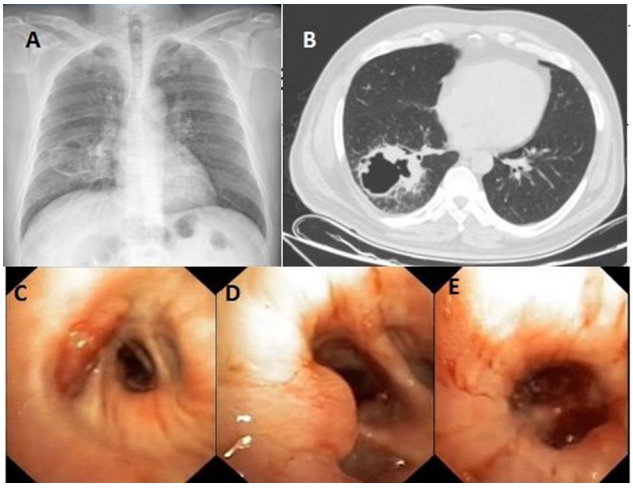

Fig. 1. Cavitary lesion in the right lower lobe on thoracic CT (a); endobronchial lesion on the CT scan (b); mass at the entrance of the right middle lobe, narrowing the middle lobe entrance by 80% and protruding into the intermediate bronchus (c); mucosal bulge observed on the lateral wall at the entrance of the basal segment (d); active hemorrhage noted in the laterobasal segment (e).

A 53-year-old male with a significant smoking history presented to the emergency department with a 15-day history of hemoptysis. Chest radiography (Fig. 1a) and thoracic computed tomography (CT) revealed a cavitary lesion in the right lower lobe (Fig. 1b). Additional testing confirmed a diagnosis of acquired immunodeficiency syndrome (HIV positive). Rigid bronchoscopy identified a mass originating from the medial wall at the entrance of the right middle lobe, obstructing approximately 80% of the lumen and extending into the intermediate bronchus, with visible spontaneous bleeding (Fig. 1c). A mucosal bulge on the lateral wall at the entrance of the lower lobe basal segment further narrowed the lumen by 20% (Fig. 1d), with active hemorrhage noted from the laterobasal segment (Fig. 1e). The patient subsequently underwent a right lower bilobectomy, Histopathological evaluation revealed a mixed type inflammatory proliferation infiltrating the bronchial wall and epithelium, rich in histiocytes with granular cytoplasm, polymorphonuclear leukocytes, lymphocytes, eosinophils, and plasma cells, fibrosis, focal areas of necrosis, small round oval structures in histiocyte cytoplasm that are positive for PAS and Grocott's but do not stain with Giemsa, causing birefringence under light microscopy, and histiocyte clusters in alveolar spaces of the surrounding parenchyma were observed. Following additional histochemical staining, a diagnosis of malakoplakia was made due to positive staining in basophilic cytoplasmic inclusions with Prussian blue and von Kossa. Pulmonary malakoplakia is a very rare diagnosis, typically presenting with mass or cavitating lesions and extrinsic compression that mimics tumors; however, endobronchial lesions are quite uncommon.[1,2] In HIV-positive patients, malakoplakia should be considered when both an endobronchial lesion and a cavitary lesion are detected.

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Authors' Contributions

SNS: done the rigid bronchoscopy and writing, CS: follow up the patient and done literature search, NAF: pathological evaluation of the material.

Artificial Intelligence Involvement

None.

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Conflicts of Interest

The authors declare not to have any conflicts of interest that may be considered to influence directly or indirectly the content of the manuscript.

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