

Clinical image

Endoscopic Diagnosis and Medical Resolution of a Tuberculous Bronchomediastinal Fistula: Non-invasive Treatment



Diagnóstico endoscópico y resolución médica de una fístula broncomediastínica tuberculosa: Tratamiento no invasivo

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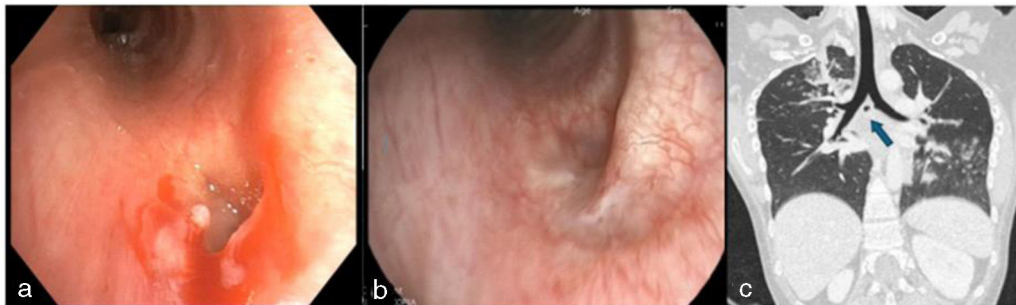


Fig. 1. (a) Endoscopic image showing direct visualization of a bronchomediastinal fistula due to tuberculosis. Before treatment, a rupture of the mucosa in the left bronchial tree is observed, indicative of abnormal communication between the bronchus and the mediastinum. (b) Endoscopic image after 30 days of antituberculous treatment showing resolution of the fistula. (c) Chest CT scan in coronal view showing air (arrow) in the mediastinum corresponding to the fistula.

This case describes a 23-year-old Moroccan woman with congenital glaucoma and subclinical hypothyroidism, presenting with a one-year history of constitutional syndrome, exertional dyspnea, and dry cough. Upon examination, she had tachycardia, fever, hypotension, and crackles auscultated in the left lung. Laboratory tests revealed elevated LDH (475 U/L), high C reactive protein (117.2 mg/L), and positive Interferon-gamma. Chest X-ray showed bilateral alveolar consolidations, particularly in the right upper lobe, and air-filled cavities in the left lung, consistent with bronchopneumonia of possible tuberculosis etiology.

Bronchoscopy with bronchoalveolar lavage (BAL) confirmed *Mycobacterium tuberculosis* through Ziehl-Neelsen staining and polymerase chain reaction (PCR). During the bronchoscopy, a 15mm orifice in the left main bronchus indicated a bronchomediastinal fistula, confirmed by chest CT. The tuberculous bronchomediastinal fistula was diagnosed based on clinical,

radiological, and microbiological findings (Fig. 1a and b). The patient was treated conservatively with standard antituberculous therapy. After 30 days, follow-up bronchoscopy showed complete fistula resolution with minor scarring.

This case emphasizes the importance of bronchoscopy in diagnosing tuberculosis complications, such as fistulas, hemoptysis, pneumothorax, bronchiectasis, lung destruction, stenosis, even in the absence of typical symptoms.^{1,2} It also highlights the successful treatment of the fistula with antituberculous therapy, achieved without the need for invasive procedures.

Informed consent

Informed consent has been signed by the patient.

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Authors' contributions

Dario Alexander Cruz-Chamorro has contributed in conceptualization, methodology, review and editing of the case.

Oswaldo Antonio Caguana-Velez has contributed in conceptualization, methodology, review and editing of the case.

Raquel Martinez-Tomas has contributed in conceptualization, reviewing and supervision.

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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