Open Respiratory Archives 6 (2024) 100309

Sociedad Española de Neumología y Cirugía Torácica SEPAR

Open Respiratory Archives

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Endobronchial Fibroanthracosis Associated With Mycobacterium Chimaera Infection: An Exceptional Case

Fibroantracosis endobronquial asociada con infección por Micobacterium Chimaera: un caso excepcional

Fernando Garcia-Prieto[a,*], Adriana Rodríguez Perojo[a], María Teresa Río Ramírez[b]

[a] *Hospital Universitario de Getafe, Autovía Madrid-Toledo Km 12.5, 28095 Getafe, Madrid, Spain*
[b] *Profesora asociada, Universidad Europea de Madrid, Hospital Universitario de Getafe, Autovía Madrid-Toledo Km 12.5, 28095 Getafe, Madrid, Spain*

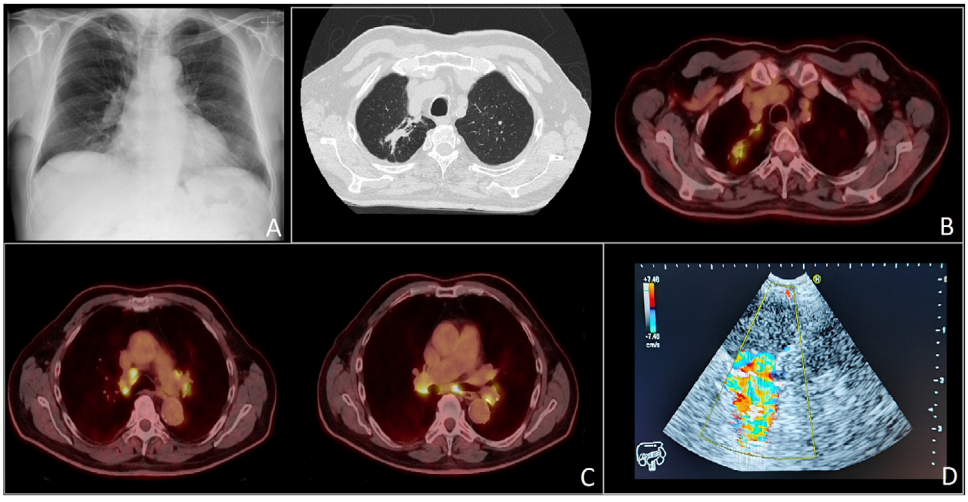

Fig. 1. (A) Chest X-ray shows an infiltrate in the right upper lobe. (B) CT revealed an irregular lesion in the right upper lobe with pathological uptake on PET-CT. (C) PET-CT revealed pathological uptake in these lesions and in mediastinal, hilar, and interlobar lymph nodes. (D) Ultrasound view before the puncture of the 4R lymph node.

An 80-year-old, non-smoking man with cardiovascular risk factors was referred to the pulmonology department due to suspicious tuberculosis infection images on chest radiography (Fig. 1A) with no symptoms. Chest Computed Tomography (CT) revealed an irregular lesion in the right upper lobe and adjacent pseudonodular lesions with volume loss, suggesting malignancy (Fig. 1B). PET-CT showed pathological uptake in these lesions and in mediastinal, hilar, and interlobar lymph nodes (Fig. 1C). Fibrobronchoscopy revealed fibroanthracosis in the bronchial mucosa, followed by bronchial biopsy and bronchoalveolar lavage (Video). Endobronchial ultrasound-guided transbronchial needle aspiration sampled the highly uptaken mediastinal lymph nodes (Fig. 1D). Results showed non-necrotizing granulomas, which can often mistaken for sarcoidosis, and the presence of Mycobacterium chimaera (MC) in the bronchial biopsy. MC, part of the Mycobacterium avium complex, is an opportunistic pathogen primarily associated with respiratory manifestations in immunocompromised patients. An increasing number of disseminated infections have been reported worldwide, particularly following cardiothoracic surgery, via bioaerosols emitted from contaminated water systems.[1] Fibroanthracosis poses a differential diagnosis among neoplasms, smoking, industrial exposure, or tuberculosis infection.[2] This case highlights the importance of considering Mycobacterium chimaera as an infectious agent in atypical cases, challenging conventional associations, and emphasizing the need for a comprehensive differential diagnosis in unusual clinical manifestations.

* Corresponding author.
E-mail address: fgprieto@salud.madrid.org (F. Garcia-Prieto).

https://doi.org/10.1016/j.opresp.2024.100309

Informed consent

Written informed consent was obtained from the patient for the publication of the article.

Funding

There was no funding source in this study.

Authors' contributions

Fernando García: He has contributed to editing, case research, and image processing.

Adriana Rodriguez: She has contributed to manuscript writing and bibliographic research.

Maria Teresa Rio: She has contributed to case direction as well as editing and bibliographic citations.

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Conflict of interest

The authors declare that they have no conflict of interest.

Appendix A. Supplementary data

Supplementary data associated with this article can be found, in the online version, at doi:10.1016/j.opresp.2024.100309.

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