



## Clinical images

### Tuberculosis Simulating Lung Cancer

### Tuberculosis simulando cáncer de pulmón

Mercedes Carrasco Sánchez<sup>a,\*</sup>, Eduardo Solís García<sup>a,b,c</sup>, Luis Mejías Sosa<sup>d</sup>,  
Mercedes García-Salmones Martín<sup>a,b,e,f</sup>

<sup>a</sup> Servicio de Neumología, Hospital Universitario Rey Juan Carlos, Móstoles, Madrid, Spain

<sup>b</sup> Unidad de Neumología Intervencionista, Servicio de Neumología, Hospital Universitario Rey Juan Carlos, Móstoles, Madrid, Spain

<sup>c</sup> Grupo Emergente de Broncoscopia y Neumología Intervencionista (GEBRYN) de la Sociedad Española de Neumología y Cirugía Torácica (SEPAR)

<sup>d</sup> Servicio de Anatomía Patológica, Hospital Universitario Rey Juan Carlos, Móstoles, Madrid, Spain

<sup>e</sup> Jefe de Servicio Hospital Universitario Infanta Elena, Valdemoro, Madrid, Spain

<sup>f</sup> Jefe de Servicio Hospital Universitario Rey Juan Carlos, Móstoles, Madrid, Spain



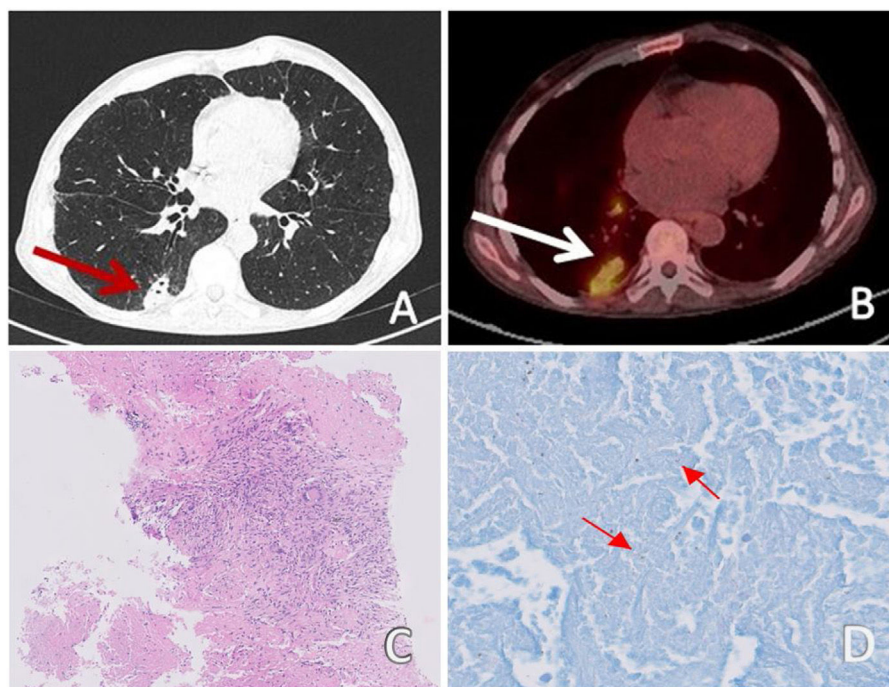
We report a case of a 64-year-old man smoker with occupational exposure to silica dust in mining. He consulted due to persistent dyspnea on exertion and chronic cough. A Computed Tomography (CT) was requested, which described a 37-mm consolidation at the level of the right lower lobe, with pleural contact (Figure 1). This study was completed with 18-fluorodeoxyglucose Positron Emission Tomography (FDG-PET), which found a bilobed consolidation in the periphery of the right lower lobe with spiculated contour and pathological uptake of FDG suspicious of malignancy with a maximum Standardized Uptake Value (SUVmax) of 4.0. Mediastinal and right hilar lymph nodes were suspicious of malignancy too (SUVmax up to 4.3).

As part of the study, bronchoscopy was performed without endoscopic alterations and an ultrasonic bronchoscopy was accomplished but the samples were insufficient for cytological evaluation. Then a transthoracic lung biopsy was performed with a core needle, observing necrotizing granulomas and Langhans cells. Data was compatible with tuberculosis involvement without appreciating evidence of malignancy.

In summary, despite its prevalence and the knowledge gained over decades, tuberculosis continues to be a disease that often poses a diagnostic challenge due to its ability to imitate lung neoplasia both clinically and radiologically<sup>1,2</sup>.

\* Corresponding author.

E-mail address: [maria.carrascos@hospitalreyjuancarlos.es](mailto:maria.carrascos@hospitalreyjuancarlos.es) (M. Carrasco Sánchez).



**Fig. 1.** (A) Chest CT: consolidation at the level of the right lower lobe with pleural contact (red arrow). (B) PET-CT: bilobed consolidation in the periphery of the right lower lobe (white arrow) and right hilar lymph nodes with pathologic FDG uptake. (C) Pathology: giant cells and necrosis (10×). (D) Microbiology: presence of acid fast bacilli by Ziehl Neelsen stain (little red arrows).

### Informed consent

Informed consent was obtained from the patient for the publication of his clinical data and the use of diagnostic images.

### Funding

No funding.

### Authors' contributions

*M. Carrasco Sánchez*: contributed to the design and implementation of the research, to the analysis of the results and to the writing of the manuscript. *E. Solís García*: conceived of the presented idea and supervised the work. *L.D. Mejías Sosa*: provided

the anatomical pathology images. *M. García-Salmones Martín*: performed bronchoscopy and transthoracic lung biopsy.

### Conflicts of interest

The authors have no conflict of interest to declare.

### References

1. Hammen I. Tuberculosis mimicking lung cancer. *Respir Med Case Rep.* 2015;16:45–7. <http://dx.doi.org/10.1016/j.rmcr.2015.06.007>. PMID: 26744652; PMCID: PMC4681891.
2. Xiang Y, Huang C, He Y, Zhang Q. Cancer or Tuberculosis: A Comprehensive Review of the Clinical and Imaging Features in Diagnosis of the Confusing Mass. *Front Oncol.* 2021;11:644150. <http://dx.doi.org/10.3389/fonc.2021.644150>. PMID: 33996560; PMCID: PMC8113854.