## **ARTICLE IN PRESS**

Archivos de Bronconeumología xxx (xxxx) xxx-xxx



# ARCHIVOS DE **Bronconeumología**

ARCHIVOS DE Bronconeumología

www.archbronconeumol.org

## Clinical Image

## Unexpected Detection of Azygos Vein Thrombosis During Endobronchial Ultrasound-guided Transbronchial Mediastinal Cryobiopsy (EBUS-TMC)

Pedro Juan Rodríguez Martín\*, Leandro Tapia Barredo, Felipe Cristóbal Andreo García

Pulmonology Service, Interventional Pulmonology Unit, Hospital University Germans Trias I Pujol, Badalona, Barcelona, Spain



Fig. 1. Azygos vein thrombus.

A 67-year-old female active smoker was referred to Interventional pulmonology unit after incidental detection of a left perihilar mass on imaging. Positron Emission Tomography showed a left hilar pulmonary mass invading mediastinal fat, hypermetabolic lymphadenopathy (supraclavicular, paratracheal, bilateral hilar, subcarinal), and hypermetabolic T2-T3 vertebral lesions suggesting skeletal metastases. Bronchoscopy revealed left main bronchus infiltration; multiple biopsies were negative. Under general anesthesia. EBUS-TMC was performed, obtaining tissue from subcarinal and left hilar stations. During right paratracheal ultrasound, a hypoechoic intraluminal image (3.68 mm  $\times$  3.79 mm) within the azygos vein was identified (video), suggestive of azygos vein thrombosis (AVT), along with a thrombus in the right pulmonary artery. These findings highlight the importance of systematic vascular assessment during EBUS, even in oncology procedures. AVT is rare and its etiopathogenesis remains unclear. The most frequent predisposing factor is azygos vein aneurysm (47.3%), followed by septic thrombosis (15.8%), and intravascular catheters (10.5%). Other associated conditions include congenital malformations or prothrombotic states. Although venous thromboembolism is common in cancer, AVT in this setting is exceptional, making its detection notable and clinically significant (Fig. 1).

## **CRediT authorship contribution statement**

All the authors of the article have contributed substantially to the elaboration of the manuscript.

## Declaration of generative AI and AI-assisted technologies in the writing process

No use of IA has been used to elaborate this scientific letter.

https://doi.org/10.1016/j.arbres.2025.07.013

0300-2896/© 2025 SEPAR. Published by Elsevier España, S.L.U. All rights are reserved, including those for text and data mining, Al training, and similar technologies.

Please cite this article as: P.J. Rodríguez Martín, L. Tapia Barredo and F.C. Andreo García, Unexpected Detection of Azygos Vein Thrombosis During Endobronchial Ultrasound-guided Transbronchial Mediastinal Cryobiopsy (EBUS-TMC), Archivos de Bronconeumología, https://doi.org/10.1016/j.arbres.2025.07.013

<sup>\*</sup> Corresponding author.

E-mail addresses: pjrodriguezm.germanstrias@gencat.cat, pjrm2011@gmail.com (P.J. Rodríguez Martín).

G Model ARBRES-3847; No. of Pages 2

## **ARTICLE IN PRESS**

P.J. Rodríguez Martín, L. Tapia Barredo and F.C. Andreo García

Archivos de Bronconeumología xxx (xxxx) xxx-xxx

#### **Funding**

The authors declare that no funding was received for this article.

## **Conflict of interest**

The authors declare that they have no conflict of interest directly or indirectly related to the contents of this manuscript.

## Appendix A. Supplementary data

Supplementary data associated with this article can be found in the online version available at https://doi.org/10.1016/j.arbres .2025.07.013.

## References

- [1] Torky M, Andreo F, Serra P. Incidental diagnosis of pulmonary embolism during routine convex endobronchial ultrasound. Respir Investig 2018;56(4):369–70, http://dx.doi.org/10.1016/j.resinv.2018.04.001.
- [2] Lopez-Bauza A, Jara-Palomares L. Symptomatic azygous vein thrombosis: clinical case and literature review. Arch Bronconeumol (Engl Ed) 2021;57(7):506–9, http://dx.doi.org/10.1016/j.arbres.2020.12.018. S0300-2896(20)30559-7 [in English, Spanish].