

MEDICINA CLINICA PRÁCTICA



www.elsevier.es/medicinaclinicapractica

Images in medicine

Transbronchial cryobiopsy under real-time radial mini-probe

Criobiopsia transbronquial bajo minisonda radial en tiempo real

Juan José Cruz-Rueda^{a,*}, Francisco Javier Velasco-Albendea^b and María Jesús Gil-Belmonte^b

- ^a Pneumology Clinical Management Unit, Torrecardenas University Hospital, Almeria, Spain
- ^b Clinical Management Unit of Pathological Anatomy, Torrecardenas University Hospital, Almeria, Spain



A radial mini-probe is a tool used to confirm the location of the target before sampling. Although the radial mini-probe provides real-time imaging, the biopsy procedure itself is not performed in real time. This limitation introduces the risk of misalignment when retrieving the radial probe and performing the biopsy. Chen et al. reported other cases of biopsies with real-time visualization using a radial probe but they used a modified flexible bronchoscope equipped with an additional working channel. Anagnostopoulos et al. described a case of transbronchial cryobiopsy with real-time visualization using a radial mini-probe but the procedure was performed under deep sedation with a rigid tracheoscope. We show the first case of a patient who underwent transbronchial cryobiopsy with a radial mini-probe under real-time visualization for the assessment of a 7-mm nodule at the right middle lobe lateral segment (Fig. 1) (Video 1). The procedure was performed under conscious sedation with an ordinary single-use bronchoscope and a 1.1-mm cryoprobe. There were no complications. The pathological results confirmed the diagnóstico of a carcinoid tumor.

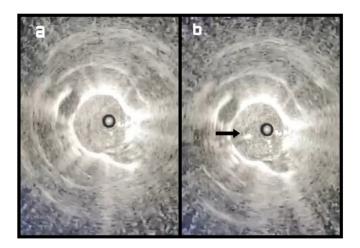


Fig. 1. Radial ultrasound imaging of the lesion (a). Radial ultrasound showing a hyperechoic image and posterior acoustic enhancement within the mass (arrow) (b).

Study approval statement

This manuscript did not require ethical review board approval.

Corresponding author at: Hermandad de Donantes de Sangre Street, s/n, 04009 Almería, Spain. E-mail address: jucrru@outlook.es (J.J. Cruz-Rueda).

Consent to participate statement

Written informed consent was obtained from participants to perform the bronchoscopy.

Consent to publish statement

Written informed consent was obtained from the patient for publication of this case report and any accompanying images. The authors declare that they have not used any artificial intelligence tools for the preparation of the manuscript.

Declaration of 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.

Funding sources

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors. Supplementary data to this article can be found online at https://doi.org/10.1016/j.mcpsp.2025.100508.

References

- Chen A, Misselhorn D. Biopsy of peripheral pulmonary lesions using real-time radial endobronchial ultrasound and a "double-barrel" bronchoscope. J Bronchology Interv Pulmonol. 2009;16(1):22–4. doi:10.1097/LBR.0b013e3181966b2b.
- Anagnostopoulos N, Petrarulo S, Ravaglia C, Dubini A, Piciucchi S, Stratakos G, et al. Transbronchial lung cryobiopsy under real-time radial EBUS: first report on a novel twist of the classical technique. Respirol Case Rep. 2024;12(7):e1435. doi:10.1002/ rcr2.1435.