



Clinical Image

Diagnosis of Pulmonary Infarction by Thoracic Ultrasonography[☆]

Diagnóstico de infarto pulmonar mediante ecografía torácica

Sergi Pascual-Guardia,^{a,b,c,*} María Pilar Ausin-Herrero,^{a,b,c} Enric Ripoll-Fuster^d

^a Servicio de Neumología, Hospital del Mar-IMIM, Barcelona, Spain

^b Departamento de Ciencias Experimentales y de la Salud (CEXS), Universitat Pompeu Fabra, Barcelona, Spain

^c CIBERES, Instituto de Salud Carlos III (ISCIII), Madrid, Spain

^d Servicio de Radiología, Hospital del Mar, Barcelona, Spain



A male patient consulted due to cough, pleuritic pain and fever (38.3 °C). Chest X-ray revealed consolidation in the right lower lobe (RLL) with effacement of the diaphragmatic silhouette. A diagnosis of complicated pneumonia was given, and a chest ultrasound was requested, which showed a small amount of pleural effusion and pleural-based, triangular subpleural consolidation (Fig. 1A), with no Doppler signal (Fig. 1B), possibly indicating pulmonary infarction. Chest CT-angiogram was performed, confirming filling defects in the posterobasal and laterobasal segmental arteries of the RLL (Fig. 1C) with subpleural peripheral opacity in the posterobasal segment of the RLL (Fig. 1D), with enhanced uptake corresponding to pulmonary infarction. The presence of "A-lines" in the ultrasound pattern has been described as indicative of pulmonary thromboembolism, with 81% sensitivity and 99% specificity if associated with deep vein thrombosis.¹ Pulmonary infarction can be identified as a pleural-based wedge-shaped hypoechoic lesion with well-defined borders.² In our patient, chest ultrasonography performed after an initial suspicion of complicated pneumonia was crucial for reaching the correct diagnosis.

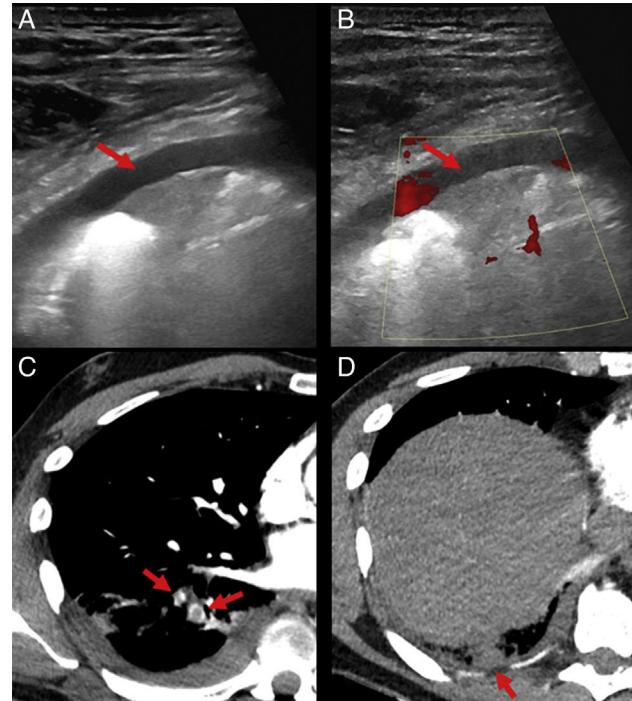


Fig. 1. Chest ultrasound and computed tomography showing a filling defect in the segmental arteries of the RLL, and pleural-based, triangular subpleural consolidation, diagnosed as pulmonary thromboembolism with pulmonary infarction.

References

1. Lichtenstein D. Novel approaches to ultrasonography of the lung and pleural space: where are we now? *Breathe (Sheff)*. 2017;13:100–11.
2. Gallego Gómez MP, García Benedito P, Pereira Boo D, Sánchez Pérez M. [Chest ultrasonography in pleurapulmonary disease]. *Radiología*. 2014;56:52–60.

[☆] Please cite this article as: Pascual-Guardia S, Ausin-Herrero MP, Ripoll-Fuster E. Diagnóstico de infarto pulmonar mediante ecografía torácica. *Arch Bronconeumol*. 2018;54:158.

* Corresponding author.

E-mail address: spascual@parcdesalutmar.cat (S. Pascual-Guardia).