Clinical Image

Diagnosis of Pulmonary Infarction by Thoracic Ultrasonography

Diagnóstico de infarto pulmonar mediante ecografía torácica

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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. Pulmonary infarction can be identified as a pleural-based wedge-shaped hypoechoic lesion with well-defined borders. In our patient, chest ultrasonography performed after an initial suspicion of complicated pneumonia was crucial for reaching the correct diagnosis.

References


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.