

Empyema

Empiema

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Radiologically, an empyema initially appears as a typical pleural effusion (usually unilateral). As it reaches the fibrinopurulent stage, the empyema assumes a loculated configuration, with a characteristic lenticular shape and smooth margins that is convex toward the lung and forms an obtuse angle with the chest wall. In contrast to a pulmonary abscess, empyema shows a difference in the length of the air-fluid level between the posteroanterior and lateral projections.¹

On computed tomography (Fig. 1), the important features are pleural thickening and enhancement.

Thickening and increased attenuation of the extrapleural fat are visible in 8 out of 10 patients with empyema.

The classic “split pleura” sign is an important finding in the differential diagnosis. It consists of smooth thickening and contrast enhancement of the visceral and parietal pleura surrounding the fluid collection in the space.²

On ultrasound, findings may vary based on the stage. Initially, the collection may appear anechoic, and as the condition evolves, it may appear septated or echogenic.

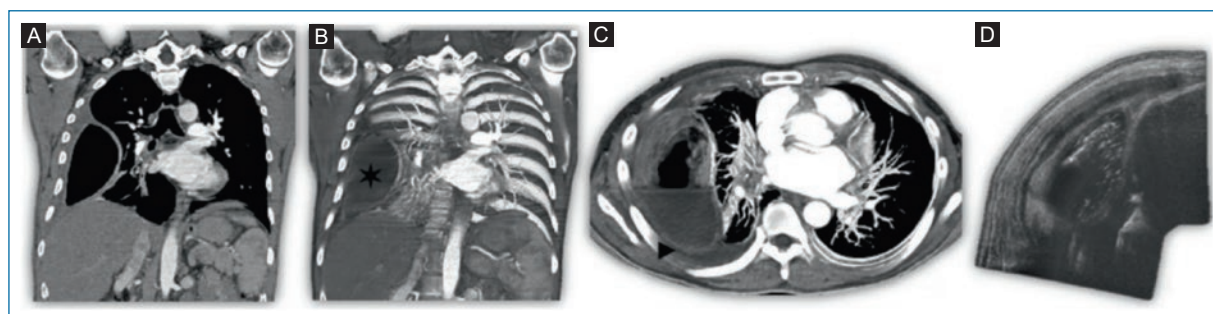


Figure 1. Computed tomography in the coronal plane **A:** and maximum intensity projection **B:** showing the lenticular empyema, convex toward the parenchyma (*), extrinsically compressing the adjacent pulmonary parenchyma. **C:** Axial maximum intensity projection showing the split pleura sign (►) with pleural enhancement and extrapleural fat edema. **D:** Extended plane showing the lenticular empyema with punctate echogenic foci within its interior.

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Conflicts of interest

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Ethical considerations

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Confidentiality, informed consent, and ethical approval. The authors have followed their institution's protocols for accessing data from clinical records. Informed consent was obtained from the patients, and approval from the Ethics Committee has been secured. The SAGER guideline recommendations have been followed.

Statement on the use of artificial intelligence. The authors declare that no form of artificial intelligence was used.

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