

Clinical Image

Acute Hemorrhage into an Emphysematous Bulla

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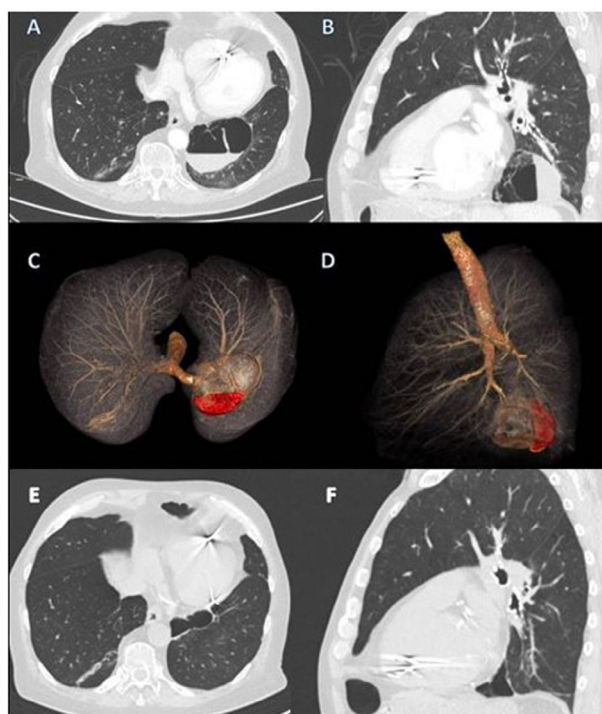


Fig. 1. Multiplanar chest CT reconstructions with intravenous contrast in axial (A) and sagittal (B) planes where a bulla located in the medial basal segment of the LLL with hematic level is observed. 3D segmentation of the findings in axial (C) and sagittal (D) projection. In orange (C and D), the airway and bulla stand out, and bleeding is shown in red. Multiplanar CT reconstructions without intravenous contrast in axial (E) and sagittal (F) planes 5 months later. Persistence of the bulla located in the medial basal segment of LLL with smaller size and in the absence of the hematic level (E and F).

Emphysematous bullae are focal regions of air trapping in patients with chronic obstructive pulmonary disease (COPD). The presence of hematic content is a rare form of presentation.¹

A 70-year-old man, ex-smoker, diagnosed with atrial fibrillation anticoagulated with acenocoumarol, who also suffered from severe COPD, was admitted to the hospital due to a 2-day history of hemoptysis (20 cc per day). A chest computed tomography (CT) scan revealed emphysema regions, along with a bulla in the medial basal segment of the left lower lobe (LLL), with blood content inside (Fig. 1 and Video). Anticoagulation was suspended and a bronchoscopy was performed, which found a possible beginning point, and ruled out the presence

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of active bleeding. Given the persistence of hemoptysis, a lobectomy or arterial embolization was considered, but due to the hemodynamic stability of the patient, conservative treatment was continued. Finally, the hemoptysis stopped and anticoagulation was restarted. Five months later, bulla reduced and had no hematic level. The patient was totally asymptomatic.

Pulmonary bullae are common in patients with COPD, but the presence of blood content is exceptional,^{1,2} This case describes the formation of hematoma in an emphysematous bulla of an anticoagulated patient, and shows its evolution through CT reconstructions.

Authors' contributions

All authors have made substantial contributions in each of the following aspects: conception, clinical case design and data acquisition, drafting of the article and critical revision of the intellectual content, and final approval of the presented version.

Informed consent

Informed consent was obtained from the patient's relative for publication of the clinical data and images present in this manuscript.

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Conflict of interest

FV-Á has attended or participated in activities organized or financed by the pharmaceutical companies Amiral, AstraZeneca, Bial, BoehringerIngelheim, Chiesi, GlaxoSmithKline, Esteve, Ferrer, Menarini, Novartis, Mundipharma, Orion, Pfizer, Teva and Zambon. FV-Á is part of the Editorial Board of Archivos de Bronconeumología and declares to have remained outside the evaluation and decision-making process in relation to this article.

The rest of the authors declare no conflict of interest.

Appendix A. Supplementary data

Supplementary data associated with this article can be found, in the online version, at [doi:10.1016/j.arbres.2023.03.007](https://doi.org/10.1016/j.arbres.2023.03.007).

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