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Clinical image

The Luftsichel Sign is Still in Effect

El signo de Luftsichel sigue vigente

Ignacio Boira Enrique*, Violeta Esteban Ronda, Eusebi Chiner Vives

Pneumology Department, University Hospital of Saint John of Alicante, Spain

An 84-year-old male smoker of 80 packs/year was admitted by dyspnea and constitutional syndrome. Chest X-ray showed complete atelectasis of the left upper lobe (LUL) (Fig. 1a, arrow), compensatory hyperinsuflation of the left lower lobe (LLL) and anterior displacement of the major fissure (Fig. 1b, arrow), being compatible with Luftsichel's sign. Bronchoscopy revealed a tumor with critical obstruction of the bronchus of the LUL (Fig. 1c, arrow).

Luftsichel's sign ("luft" [air] and "sichel" [crescent]), described in 1942, is a radiological sign indicative of complete LUL atelectasis. It can be produced by luminal (mucus plug), mural (bronchogenic carcinoma) and extrinsic (bronchial compression) causes, being bronchogenic carcinoma the most frequent etiology. In Spain, according to the Globocan registry (Global cancer observatory), 30,948 new cases of lung cancer were diagnosed in 2022, causing the death of 21,918 patients so it is essential to recognize the radiological signs for early detection. In posteroanterior projection there is an increasing hyperclarity between the aortic arch and the LUL associating elevation of the left hilum and ipsilateral diaphragm.[1] In lateral projection, a raised retrosternal density with anterior displacement of the major fissure is evidenced. In this radiological sign there is an anteromedial migration of the major fissure, remaining in a vertical position, parallel to the thoracic wall and contacting the left paracardiac border. It associates a compensatory hyperinflation of the LLL extending to the left apex and interposing between the collapsed lobe and the mediastinum.[2]

Informed consent

Informed consent has been obtained from the patient.

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Authors' contributions

Conceptualization: IB, VE and EC; Methodology: IB, VE and EC; Software: IB, VE and EC; Validation: IB, VE and EC; Formal Analysis: IB, VE and EC; Investigation: IB, VE and EC; Redaction: IB, VE and EC; Manuscript preparation: IB, VE and EC; Revision and edition: IB, VE and EC; Supervision: IB, VE and EC; Project administration: IB.

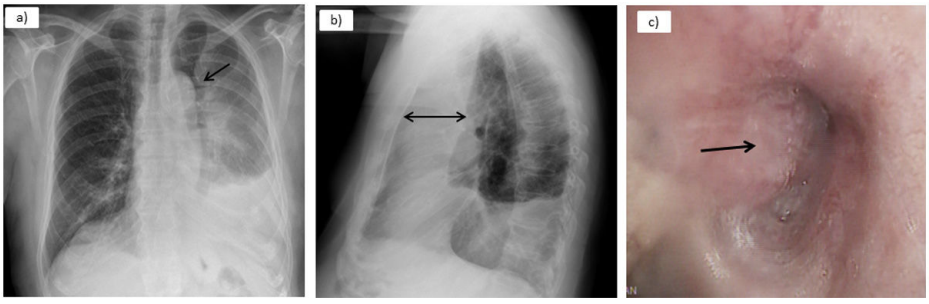

Fig. 1. (a) Posteroanterior chest radiograph with complete atelectasis of left upper lobe (LUL), hyperinsuflation of left lower lobe and hyperclarity between the aortic arch and the LUL. (b) Lateral chest radiograph with an increasing of retrosternal density with anterior displacement of the major fissure. (c) Bronchoscopic view of tumor which produce critical obstruction of the bronchus of the LUL.

* Corresponding author.
E-mail address: nachoboiraenrique@hotmail.es (I. Boira Enrique).

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Conflicts of interest

The authors declare that they have no conflict of interest directly or indirectly related to the contents of the manuscript. directly or indirectly related to the contents of the manuscript.

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