CE - MEDICAL ILLUSTRATION



Hiding behind the veil: an ominous chest X-ray

Armen Attarian¹ · Paul Benvenuto¹

Received: 13 January 2018 / Accepted: 23 January 2018 / Published online: 31 January 2018 © SIMI 2018

A 71-year-old woman presented to the Emergency Department with a 2-week history of productive cough, fevers and general deterioration. Her past medical history was non-contributory other than hypertension, dyslipidemia and remote cholecystectomy. General examination demonstrated an oxygen saturation of 92% on room air and decreased air entry over the left lung field. A chest radiograph was subsequently performed.

The frontal radiograph demonstrates the presence of a "veiling" opacity extending over the left hemithorax (arrow Fig. 1a) with the presence of the luftsichel sign, which is German for "air crescent" (arrowheads Fig. 1a). [1, 2] These radiographic findings are specific for the presence of left upper lobe collapse. Anatomically, the air crescent represents a hyper-expanded superior segment of the left lower lobe which lies between the aortic knuckle and medial border of the collapsed lobe [2]. Unlike pneumonia, which has a

more patchy distribution, there is no significant silhouetting of the left cardiomediastinal contour.

Left upper lobe collapse presents with distinctive radiological features, not to be misinterpreted with other commonly encountered chest radiograph abnormalities. Prompt identification of lobar collapse is important, as it should elicit further work-up with cross-sectional imaging to exclude an underlying endobronchial lesion. Computed Tomography of the thorax revealed a large left upper lobe mass with complete occlusion of the upper lobe bronchus (arrow Fig. 1b). Further evaluation with bronchoscopy and endobronchial biopsy yielded squamous cell carcinoma. Although not all cases of lobar collapse are attributable to malignancy, it remains important to exclude it as a potential etiology. The patient was referred to pulmonology for workup and treatment.

Armen Attarian armen.attarian@mail.mcgill.ca

¹ Department of Radiology, Royal Victoria Hospital, McGill University Health Centre (MUHC), 1001, Decarie Blvd, Montreal H4A 3J1, Canada



Fig. 1 a A frontal posteroanterior (PA) radiograph demonstrating the veiling opacity over the left hemithorax (arrow) and the luftsichel sign (arrowheads). \mathbf{b} A coronal contrast-enhanced computed tomog-

raphy of the thorax image demonstrating a large left upper lobe mass with associated lobar collapse (arrow)

Funding This research received no specific Grant from any funding agency, commercial or not-for-profit sectors.

Compliance with ethical standards

Conflict of interest None.

Statement of human and animal rights This article does not contain any studies with human and animals performed by any of the authors. The manuscript does not contain clinical studies or identifying patient data.

Informed consent None.

References

- 1. Collins J, Stern EJ (2007) Chest radiology, the essentials. Essentials series. Lippincott Williams & Wilkins, Philadelphia
- Day K, Oliva I (2015) Signs in cardiopulmonary imaging: luftsichel sign. J Thorac Imaging 30(3):W1