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Appearance of Round Atelectasis on Radiological Images

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Abstract:

Round atelectasis, or folded lung, involves parenchymal collapse linked to pleural thickening, often in the outer lung areas of the lower lobes. Pathological analysis reveals pleural fibrosis above the affected tissue, with fibrotic pleura invaginating into the collapsed region. This condition typically occurs in the peripheral lung, particularly in the dorsal regions of the lower lobes [1,2].

Keywords: parenchymal; thoracic; atelectasis

Introduction:

Round atelectasis, or folded lung, involves parenchymal collapse linked to pleural thickening, often in the outer lung areas of the lower lobes. Pathological analysis reveals pleural fibrosis above the affected tissue, with fibrotic pleura invaginating into the collapsed region. This condition typically occurs in the peripheral lung, particularly in the dorsal regions of the lower lobes [1,2].

Observation:

A 35-year-old patient, with a history of occupational asbestos exposure, was admitted for the management of persistent isolated chronic cough despite symptomatic treatment. The clinical examination revealed no particularities. A thoracic CT scan (Figure 1) revealed a subpleural pulmonary consolidation in the left lower lobe, oval in shape, well-defined, with regular contours, homogeneous, and measuring 46mm*33mm*43 mm, with some air bubbles, without calcification or excavation. It also showed retraction of the left lower lobe without visualization of an endobronchial lesion, presence of a 5mm homogeneous nodule in the left upper lobe of the lingula, and a left pleural effusion, raising the suspicion of a tumor or a cystic lesion.

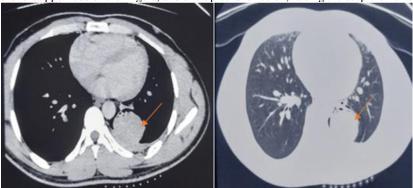


Figure 1: image montrant une condensation du LIG

The patient underwent a scannoguided biopsy, and the pathological examination confirmed a fibro-inflammatory remodeling. A specialized radiological review suggested a round atelectasis of the left lower lobe that mimicked a pulmonary tumor, due to the presence of vessels and bronchi curving around the periphery of the mass, forming the base of the comet tail sign. A bronchial fibroscopy was performed, and no anomalies were found.

Since the lobe was completely destroyed, a lobectomy was considered, and the pathological examination confirmed fibrous pleural thickening with chronic adenitis.

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