



Bronchial Atresia and Mucous Impaction Mimicking a Solitary Pulmonary Nodule

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Case report

A fifty-four year-old man was referred to the lung cancer clinic for the investigation of a left mid zone solitary pulmonary nodule seen on incidental chest radiography (Figure 1). A life-long non-smoker, the history and clinical examination did not suggest lung cancer. The nodule was smooth, round and without calcification. Repeat radiography with skin and nipple markers had failed to clarify the diagnosis. CT scanning of the chest (Figure 2) showed atresia of the left upper lobe bronchus, predominantly affecting the anterior segment. The segment distal to the atresia appears hyperinflated secondary to collateral ventilation. The apparent 'Nodule' was due to mucous impaction in the distal bronchus seen in cross section on the chest radiograph.

Whilst always raising the suspicion of primary lung cancer the differential diagnosis of a solitary pulmonary nodule is broad. Mucous impaction within an airway is an uncommon but recognised cause [1]. Bronchial atresia is a rare developmental abnormality of the bronchial tree. Predominantly affecting the upper lobes, its aetiology is unknown, and in most cases it is asymptomatic thus no action is required [2]. Infection of the hyperinflated lung is uncommon as there is no connection with the normal intrathoracic airways. Spirometry was normal for his age and height. The patient was reassured and discharged from follow-up.



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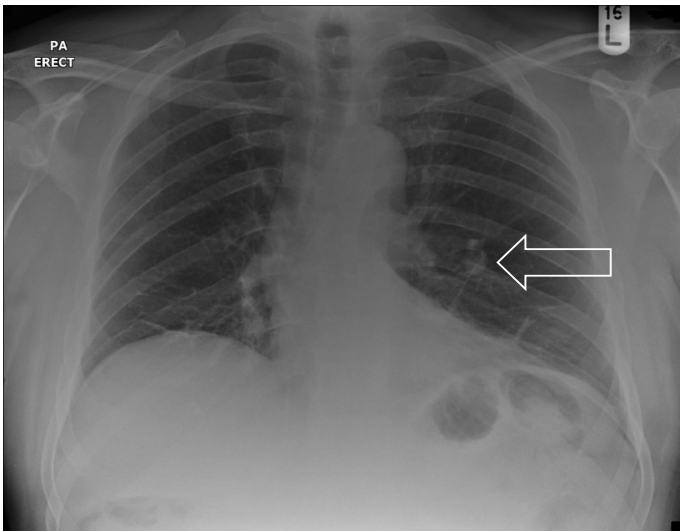


Figure 1: A well defined left mid zone nodule is seen on initial chest radiograph (Arrow).

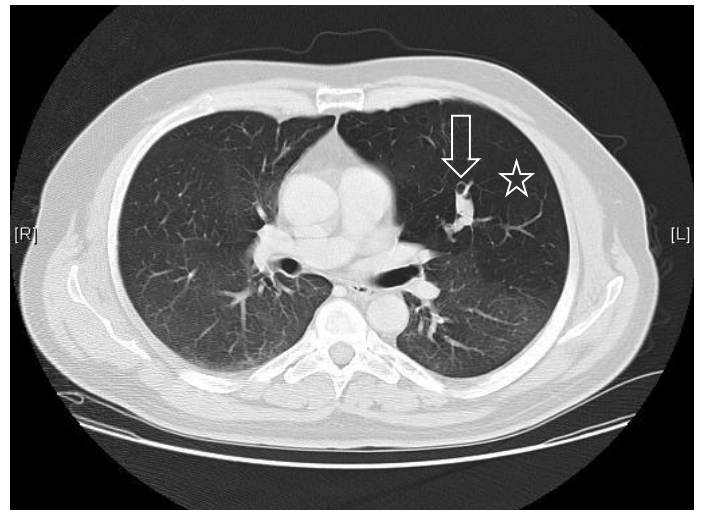


Figure 2: The previous left mid zone nodule is revealed as mucous impaction on computed tomographic scanning (Arrow). There is atresia of the left upper lobe bronchus and the hyperinflation secondary to collateral ventilation is highlighted (Star).

References

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