

# Research Journal of Pharmaceutical, Biological and Chemical Sciences

## An Astonishing Case Of Vanishing Lung Syndrome.

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### ABSTRACT

It is not uncommon to see a hyperlucent unilateral lung on X-ray. The tricky part is to diagnose it, as it can be emphysema, large bulla, pneumothorax or airway obstruction. Given below is a case of vanishing lung syndrome in a young adult.

**Keywords:** Bulla, pneumothorax, breathlessness, hyper-resonant.

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## INTRODUCTION

Vanishing Lung Syndrome is a chronic, progressive disorder characterized by giant emphysematous bullae usually in the upper lobes of the lungs, occupying at least a third of the hemi-thorax. It is also known as primary bullous lung disease or type 1 bullous lung disease [1]. It is quite a challenging diagnosis to make as it is quite often confused with emphysema, airway obstruction, pneumothorax etc [2]. Young men with smoking history are usually affected by this condition. Upper lobes of lungs are predominantly involved [3]. The bullae compress the underlying lung and cause it to virtually disappear. Surgery is the treatment of choice and shows drastic improvement [4]. This case deserves emphasis due to its rarity and also to highlight the role of Contrast Enhanced Computed Tomography (CECT) in its diagnosis.

### Case History

A 27-year old man presented with breathlessness, on and off fever and generalized weakness since one year. This was associated with expectorant cough and significant weight loss. He was prescribed Anti-Tubercular Treatment (ATT) since four months elsewhere, without microbiological evidence of Pulmonary Tuberculosis and there were no signs of improvement. He had no history of smoking. Physical examination revealed hyper-resonant notes on percussion over the right interscapular region, bronchial breath sounds over the left interscapular region and scattered crepitations.



Figure 1: Chest X-ray of the patient



Figure 2: CECT thorax of the patient

Chest X Ray showed multiple cavitary lesions involving both lung fields with relative sparing of left lower lobe with air-fluid level in one of the cavitary lesions (as shown in figure 1). Large bullous changes were suspected and a CECT was ordered for further evaluation. CECT showed multiple large emphysematous bullae involving bilateral upper lobes and right middle lobe replacing the normal lung parenchyma suggestive of Vanishing Lung Syndrome (as shown in figure 2). Mediastinal shift to the left was seen, secondary to compression by the large bullae.

ATT was discontinued due to lack of evidence of Pulmonary Tuberculosis. He was declared unfit for surgery in view of severe breathlessness. A test for serum Alpha-1 antitrypsin levels was advised, but he was unwilling and was discharged against medical advice.

#### **DISCUSSION**

In 1987, the radiologic criteria for diagnosis of vanishing lung was proposed. They include giant bulla in the upper third of the lungs. It is uncommon to see air fluid levels in these bullae. Presence of air fluid levels suggest the presence of superinfection. Ideally these patients should undergo pulmonary function tests and assessment of exercise capacity. Lung volume reduction can be considered [5].

#### **CONCLUSION**

This case illustrates the importance of not diagnosing Pulmonary Tuberculosis based on chest x ray alone as well as the need to recognize Vanishing Lung Syndrome as a distinct clinical entity, especially since a large bulla can be mistaken for a pneumothorax.

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