

Left Lower Lobe Non-Resolving Lung Consolidation: Detected to have Proximal Endobronchial Stenosis in a Young Male

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Abstract: *Post - tubercular endobronchial stenosis is one of the important complications of Pulmonary Tuberculosis. The prevalence of tuberculosis - induced endobronchial stenosis varies and is estimated to be as high as 10% to 40% in patients with pulmonary tuberculosis. It is usually under - diagnosed or misdiagnosed due to nonspecific presentation and insensitive diagnostic methods. This article reports a case of a 17 year old male patient presenting with complaints of Fever on & off, worsening cough with expectoration, loss of appetite & loss of weight since 1 month. The patient was diagnosed to have endobronchial stenosis based on bronchoscopy. He was subsequently treated with Electrocautery & CRE Balloon Dilatation of the bronchial stenosis.*

Keywords: Endobronchial stenosis, Post TB complications, balloon dilatation, bronchoscopy, non resolving pneumonia

1. Significance of the article

The significance of this article lies in its documentation of a very common complication of pulmonary tuberculosis, thereby providing valuable insight to clinicians in diagnosing and managing similar cases. It emphasizes the need for early detection so as to improve the prognosis of underlying disease and quality of life of the patients.

2. Purpose of the article

To highlight the importance of early evaluation for proximal endobronchial obstruction in a case of non resolving lung consolidation

3. Introduction

Post - tubercular endobronchial stenosis is one of the important complications of pulmonary tuberculosis. The prevalence of tuberculosis - induced endobronchial stenosis varies as a function of the prevalence of tuberculosis, and is estimated to be as high as 10% to 40% in patients with pulmonary tuberculosis. It is usually under - diagnosed or misdiagnosed due to nonspecific presentation and insensitive diagnostic methods. Recurrent consolidation or persistent collapse is a common radiological finding of stenosis. The involvement of the main bronchus is usually associated with tracheobronchial tuberculosis, a poorly recognized and underdiagnosed entity. During the healing phase of active endobronchial tuberculosis, cicatrization can cause mucosal ulceration, necrosis and fibrosis leading to stenosis.

4. Case Report

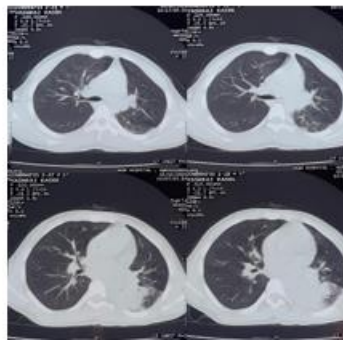
A 17 year old thin built male patient had come to OPD with complaints of Fever with chills, cough with expectoration, loss of appetite & loss of weight around 3kgs since 1 month. Patient was a being treated for similar complaints on & off since 3 months. Patient gives history of sputum positive pulmonary TB a year ago, and had received 6 months of AKT. He had no history of trauma, mechanical ventilation, or malignancy. Patient did not have any co - morbidities or addictions, past or present.

5. Clinical Course

On examination the patient was conscious, oriented with vitals within normal limits. On percussion impaired note was appreciated over left infrascapular area and on auscultation breath sounds were diminished on the left interscapular & infrascapular area with occasional wheeze over left interscapular area. Chest X Ray showed left lower zone inhomogenous opacity. HRCT (high resolution computed tomography) chest was suggestive of Mild heterogeneously enhancing lobar consolidation in left lower lobe with few tree in bud opacities in apical segment and similar changes in inferior lingular segment suggestive of? Evolving infective etiology & Compensatory emphysematous changes in entire right lung fields. Sputum reports were inconclusive. Patient was subjected to bronchoscopy which revealed near complete luminal narrowing (almost 90%) of left main bronchus and he was later subjected to electrocautery and CRE balloon assisted dilation of bronchial stenosis.



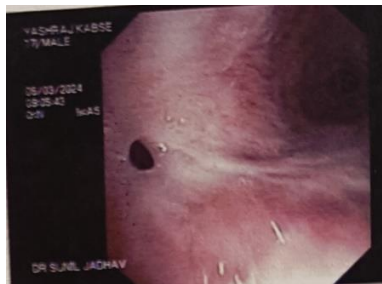
Chest Xray (PA view)



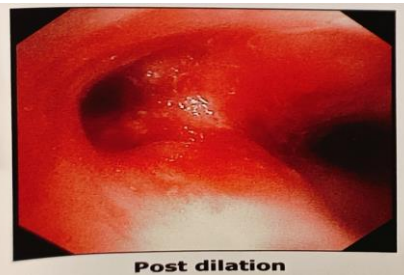
HRCT Chest



Chest X Ray (post procedure)



Bronchoscopic image



Post balloon dilation

6. Conclusion

Patients with history of sputum positive pulmonary tuberculosis presenting with non resolving lung consolidation should be evaluated for endobronchial stenosis. Interventional bronchoscopic approaches should be considered to restore airway patency. If bronchial stenosis is diagnosed early, balloon dilatation as described in this report, may be an effective and safe intervention, preventing long-term complications such as irreversible lung destruction, that may require pneumonectomy and history of recurrent hospital admissions for post obstructive pneumonias.

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