

PULMONARY TUBERCULOSIS-GREAT MIMICKER IN CLINICAL SCENARIO**Chandan Kumar¹, S. M. Raykar², S. Saha³, Lalit P. Meena^{4*}, Jaya Chakravarty⁵ and Madhukar Rai⁶**^{1,2,3}Junior Resident, Department of General Medicine, Institute of Medical Sciences, Banaras Hindu University.⁴Associate Professor, Department of General Medicine, Institute of Medical Sciences, Banaras Hindu University.^{5,6}Professor, Department of General Medicine, Institute of Medical Sciences, Banaras Hindu University.***Corresponding Author: Dr. Lalit P. Meena**

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Article Received on 19/11/2017

Article Revised on 10/12/2017

Article Accepted on 31/12/2017

ABSTRACT

The presentation of pulmonary tuberculosis and bronchogenic carcinoma is some time similar and making the diagnosis on the basis of clinical features is difficult. In developing countries like India since tuberculosis is very common, so it is not uncommon to find carcinoma of lung being treated as tuberculosis initially particularly in younger age group. India is the country with the highest burden of tuberculosis. It is estimated that about 40% of the Indian population is infected with tuberculosis bacteria, the majority of them have latent rather than active tuberculosis. Herein we are presenting a case of pulmonary tuberculosis which was presented like lung cancer on radio imaging.

KEYWORDS: Tuberculosis, Lung cancer, Carcinoma.**INTRODUCTION**

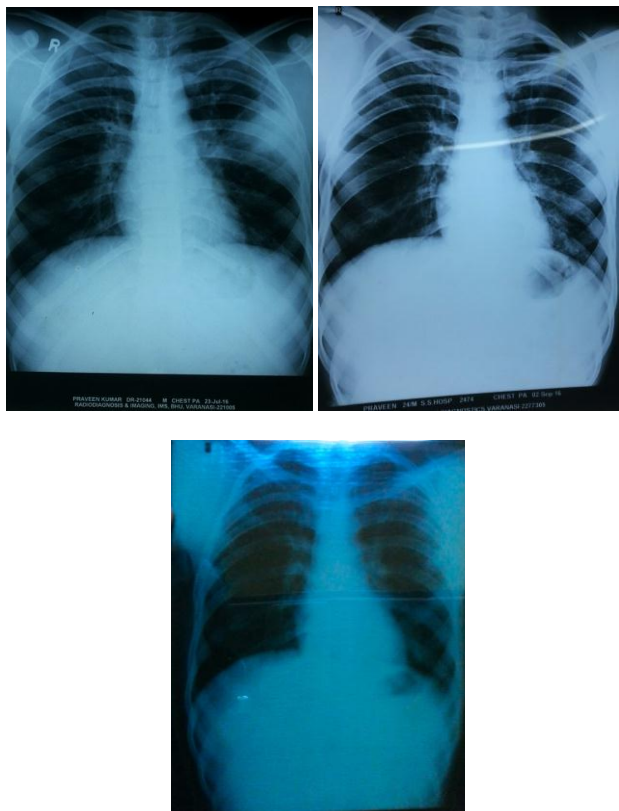
Lung cancer has been the most common cancer worldwide and remains a major cause of morbidity and mortality. Compared to the western countries, the prevalence of lung cancer in India appears to be increasing.^[1] India is the country with the highest burden of tuberculosis. It is estimated that about 40% of the Indian population is infected with tuberculosis bacteria, the majority of them have latent rather than active tuberculosis.^[2] Sometime clinical presentation of pulmonary Koch's and lung cancer is similar which leads to mismanagement of the diseases. Here we are presenting a case of pulmonary tuberculosis which presented like carcinoma of lung.

CASE SUMMARY

24-year male, gardener by occupation, non-smoker presented to us with high-grade intermittent fever with chills & rigor recorded up to 104°F on an average two to three peaks per day for last 7 days. Cough with grayish white expectoration for 7 days, not blood tinged, not associated with foul smelling with positive history of tubercular contact. General examination shows well oriented, cachexic, sick looking, dyspneic, significant pallor, no lymphadenopathy, absent pedal edema and normal JVP. Respiratory examination was revealed- Drooping of left shoulder, left infra-clavicular hemithorax fullness, Decrease chest expansion on left sided infra-clavicular, infra-mammary and infra-scapular region. Crowding of ribs with decrease chest expansion in left sided infra-clavicular, infra-mammary, infra-scapular and infra-axillary area. Percussion reveals

dullness in left scapular, infra-scapular, infra-mammary, axillary and infra axillary area. Rhonchi and decreased air entry on left basal lung fields were present in mammary and infra-axillary area on auscultation. His initial laboratory reports shows Hb-15.5 g/dL, TLC =13600/mm³ with N₇₆ L₁₀M₇ E₆ B₁ Platelet count- 2.78 lac/mm³. ALT/AST- 31/29U/L, TB/DB- 0.6/0.1mg/dl, ALP-129U/L, TP/Alb-9/3.5g/dl, Creatinine/Urea 1/40 mg/dl. Chest X-Ray PA view show opacity in Left upper lobe and based on it patient was started on oral empirical antibiotics in the line of community acquired pneumonia. Though patient's count improved but symptomatically patient was not relieved. Sputum for AFB stain was ordered and was negative twice. CECT chest ordered which reported ill-defined heterogeneously enhancing mass in sub-fissural location on left upper lobe of size 7 X 4 X 5 cm abutting the adjacent chest wall, effacing the adjacent bronchi and bronchioles with moderate left pleural effusion with bronchiectasis of inferior lingular segment i.e. overall F/S/O Bronchogenic carcinoma. Pleural fluid examination was done which showed exudative picture with pleural fluid LDH 6839(Serum LDH 1098 U/L), total protein in pleural fluid 6.20(serum total protein 8.1 g/dl), pleural fluid albumin 2.97(serum albumin 3.3 g/dl), total cells in pleural fluid 864 per mm³ with distribution N₉₀L₉. Pleural fluid for malignant cytology was clear. After that patient was subjected for bronchoscopy and the bronchoscopic findings were in favor of Pulmonary Tuberculosis, but BAL was negative for AFB. CT Guided biopsy of pulmonary mass from left upper lobe was done and sent for histopathological analysis, which

showed interstitial fibrosis with angiomatous proliferation and lymphoplasmacytic infiltrate without granuloma and malignant cells. Anti-Tubercular drug regimen of four drugs, was started after 15 days patient came in follow up with symptomatic improvement. After 2 month of antitubercular treatment his chest X-Ray showed some improvement. To confirm the exact status a repeat CT scan was ordered, in which the size of mass resolved significantly. ATT was continued. After 4 months of starting regimen chest X-Ray was again ordered which showed almost clearance of opacity.



Initial X-Ray After 2 mth of ATT After 4 mth of ATT.

DISCUSSION

The presentation of pulmonary tuberculosis and bronchogenic carcinoma is some time similar and making the diagnosis on the basis of clinical features is difficult. In developing countries like india since tuberculosis is very common, so it is not uncommon to find carcinoma of lung being treated as tuberculosis initially particularly in younger age group.^[3] 40% of patients of carcinoma lung are less than 50 years of age and 11% are less than 40 years in which Non small cell pulmonary carcinoma constitutes 75-80% of total lung carcinoma. Generally age of the patient, smoking history, mediastinal symptoms like hoarseness of voice, SVC obstruction and dysphagia etc. will favor pulmonary carcinoma.^[4]

In physical examination, signs of collapse or mass, clubbing, metastatic and non-metastatic complications of lung cancer are to be emphasized.

The nodule size more than 2-3 cm is more likely to be primary lung malignancy compared with tuberculoma. Both primary lung carcinoma and tuberculoma can occur in all lobes of both lungs but more frequently in the upper lobe. Tuberculoma seems to be round or polygonal in shape and primary pulmonary carcinoma is more likely to be lobulated shape. The smooth border nodule is found only in tuberculoma (27%) whereas 93% of primary pulmonary carcinoma had spiculated border compared to 73% among tuberculoma. Tuberculoma seems to have more satellite nodule than primary lung carcinoma. The air bronchogram and enhancement of nodule is significantly found in primary lung cancer compared with tuberculoma. Tuberculoma seems to have dense central calcification and primary lung carcinoma seems to have punctate calcification. Most of the primary lung carcinoma and tuberculoma do not have internal cavity. No evidence of bony destruction was observed in both pulmonary tuberculoma and primary pulmonary carcinoma group patients.^[5]

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