



ORIGINAL RESEARCH PAPER

Medicine

SPUTUM POSITIVE PULMONARY TUBERCULOSIS COEXISTING WITH SQUAMOUS CELL CARCINOMA OF LUNG

KEY WORDS: Pulmonary Tuberculosis; Squamous Cell Carcinoma Lung

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ABSTRACT

Coexistence of pulmonary tuberculosis and bronchogenic carcinoma is a known fact though the exact incidence is not known. Tuberculosis in patients with lung cancer may get reactivated following chemotherapy and/or radiation therapy. Malignant process can erode a quiescent tubercular lesion thereby leading on to reactivation. Malignancy may reduce immune response and susceptibility for tuberculosis may be increased and vice versa. Development of malignancy in tubercular scar is reported. Here we present the case of a lady presenting with sputum positive tuberculosis along with squamous cell carcinoma of the right upper lobe of lung.

INTRODUCTION

Tuberculosis and carcinoma of lung are common diseases. Patients with lung cancer have increased risk for pulmonary tuberculosis and vice versa. The presence of lung carcinoma is rarely suspected in patients with pulmonary tuberculosis and the diagnosis of lung cancer may be delayed. Here we describe a patient with pulmonary tuberculosis and carcinoma lung.

CASE REPORT

60yr old lady attended our hospital with complaints of cough of 4 months duration associated with scanty sputum and intermittent fever for 4 months, low grade and not associated with chills or rigor. She also had gradually progressive dyspnoea of 3months duration. For the last 4 weeks she noticed pain in the right shoulder and facial puffiness. She had associated weight loss and loss of appetite. There was no chest pain, hemoptysis, oliguria, abdominal pain, bone pain or bleeding tendency.

On examination, pulse rate was 96/mt, BP was 134/74 mm of Hg. She was pale, facial puffiness present, had clubbing of digits. She had no icterus, cyanosis, oedema or lymphadenopathy. Dilated neck veins were present which were non pulsatile. Dilated veins were present over the chest wall also. There was fullness in the right supraclavicular area, trachea was central, movements were decreased on the right side of chest. Vocal fremitus and vocal resonance was decreased in the right infraclavicular, mammary, axillary areas. Dull note on percussion was present in the right infraclavicular, mammary, axillary, upper inter scapular areas. Breath sounds were decreased in the right infraclavicular, mammary, axillary areas. Cardiovascular system normal except the dilated vessels. Alimentary and Nervous system were clinically normal. Hb-10.5gm% TC-8000, DC-L38N62, ESR-40 Platelet count-2.7 lakhs, MCV-76 RDW-16, RBS-138, Blood urea-34, S.Creatinine-1.2 Serum Na-135, K-4.5. Liver function tests normal.

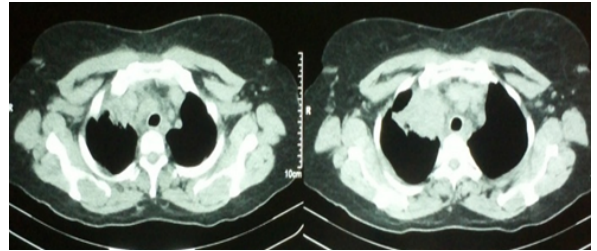


X-ray chest PA view

Sputum AFB-positive, Mantoux test -positive. FNAC from lung mass was suggestive of squamous cell carcinoma of lung.

CECT Thorax: features suggestive of malignant neoplasm of right upper lobe with total collapse of the right upper lobe, invasion of

Superior venacava, pulmonary artery and coalescing mediastinal and subcarinal lymph nodes.



CECT Chest

DISCUSSION: Reports about the coexistence of bronchogenic malignancy and pulmonary tuberculosis in the lung are there in literature. In most of those studies, these lesions were located in different lobes or even if in the same lobe, were at different locations. The incidence of lung cancer among patients with pulmonary tuberculosis is 1.7% while the incidence of pulmonary tuberculosis among patients with lung cancer is 5.7% (1). Suzuki et al reported that those patients were males over 60 years of age who smoked heavily. The pathogenesis of the coexistence of tuberculosis and lung cancer is poorly understood. Several possible explanations such as depression of cellular immunity, an increase in the number of older patients, the presence of scars and cavities in the lung, and smoking habits were postulated.(2,3) Chemotherapy and Radiotherapy for treatment of carcinoma may reduce immunity leading on to post primary tuberculosis. An invading malignant lesion can erode into a quiescent tubercular lesion leading to reactivation tuberculosis. The development of bronchogenic carcinoma in a pulmonary scar is a known fact and described as "scar" or "cicatrical" cancer of the lung (4, 5). The scars that were associated with the carcinomas were predominantly sub pleural in location. Pulmonary scar carcinoma is associated with a high incidence of adenocarcinoma. On imaging, it is often difficult to identify the coexistence of lung cancer and tuberculosis with a high degree of certainty, especially if both are in the same location resulting in delay in the diagnosis of lung cancer. Diagnosis of pulmonary tuberculosis is important not only because it is curable but also due to the fact that its presence interferes with radiological assessment to chemotherapy and radiotherapy of the lung malignancy.

CONCLUSION

High index of suspicion of coexistence of lung carcinoma and pulmonary tuberculosis should be kept when a patient presents with signs and symptoms of any of these especially in elderly ones. Sputum smear evaluation for AFB at diagnosis and at frequent intervals during the course of lung cancer at least in endemic zones should be done (6).

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