Case Report

ACTIVE PULMONARY TUBERCULOSIS WITH ASPERGILLOMA WITHOUT PRE-EXISTING PULMONARY CAVITARY LESION - CASE REPORT

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ABSTRACT

Here we are reporting a case of active Pulmonary Tuberculosis coexist with aspergilloma in 85 year old male who was known case of Glaucoma and referred from a eye hospital for evaluation of cough and Haemoptysis. After thorough clinical evaluation and investigations like CT Thorax and sputum smear examination, patient was found to have aspergilloma on right lung upper lobe and sputum AFB smear positive pulmonary tuberculosis. Patient was started Anti Tuberculous therapy cat. 1 treatment. Patient got symptomatic relief within 15 days of treatment and radiologic clearance within 2 months. This is rare case of aspergilloma with active pulmonary tuberculosis without previous cavitating lesion in lung parenchyma and without any immunocompromised status.

Keywords: Aspergilloma, Pulmonary Tuberculosis, Sputum AFB Positive

CASES

85 Year old male, retired teacher, belong to southern part of Tamil Nadu, was referred to Dept of Respiratory Medicine, Velammal Medical College Hospital and Research Institute, Madurai for evaluation of Cough with Expectoration and Fever for 15 days and Haemoptysis for 3 days.

On Detail History- Patient was asymptomatic 2 weeks back than he developed cough with sputum production, sputum was small amount and white in colour but for past 3 days sputum was blood stained. Fever was low grade with evening raise of temperature. No chest pain, no loss of appetite, no weight loss.

Past/ Personal History- No similar illness in past. Not a known case of Diabetes, Hypertension and other medical illness. No past Tuberculosis history.

He underwent hernia surgery 6 months back. Chest X ray was normal at that time. Not a known Smoker, Non Alcoholic, no other addiction history.

On Examination- Moderately Built and Nourished. Pallor present. Other physical examinations were normal.

Respiratory System- Both side Normal Vesicular Breath Sounds present, fine crackles present in Right Infra Clavicular area.

Other system examination is within normal limits.

Investigation

Blood Investigation- Within normal limits.

Chest X-Ray - Heterogeneous infiltration present in right upper and middle zone.

CT Scan Thorax- Thick wall cavity with intra cavitory body (air crescent sign) in right upper lobe. Tree in Bud appearance in right upper lobe and middle lobe, patchy consolidation present in post basal segment of left middle lobe.

Sputum AFB- positive. (Ziehl neelsen’s stain).

Sputum examination with KOH- Fungal Mycelia presents.

Final Diagnosis- Bilateral Smear Positive Pulmonary Tuberculosis with Endobronchial spread, new case, HIV negative with Apergilloma Right Upper Lobe.

Clinical Course- After 5 days of Hospitalisation patient was discharged with Anti Tuberculosis Therapy
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Cat-1. Patient was reviewed periodically. There was no further Haemoptysis. There was improvement in symptoms in 15 days and radiologically clearance in 2 months.

Figure 1: Diffuse infiltration in right upper and middle zone with cavity on right upper zone

Figure 2: CT Scan shows tree in bud appearance in right middle lobe and Consolidation in Post. Basal segment of left middle lobe

Figure 3: CT shows right upper lobe thick walled cavity with fungal ball inside (Air Crescent sign). Surrounding to cavity diffuse tree in bud appearance
DISCUSSION

Aspergillus is a ubiquitous saprophytic mold with worldwide distribution. Aspergillus conidia have a diameter small enough (2 to 3 μm) to reach the lung alveoli, which are effectively eliminated in immunocompetent individuals. In patients with pre-existing cavitary pulmonary lesions, saprophytic growth of Aspergillus spp. Leads to aspergillomas. Primary aspergilloma, which arises within the bronchial tree with proliferation of Aspergillus leading to a pulmonary cavity, is far less common.1 primary aspergilloma develops in immunocompromised status like AIDS, chemotherapy patients, neutropenia etc. Martinez et al., reported primary aspergilloma in AIDS female patient. In our patient probably old age is the reason for immunocompromised status.

In immunocompetents aspergilloma usually patients in pre-existing pulmonary cavity (secondary aspergilloma) like prior cavitary tuberculosis (most common)1, sarcoidosis3, histoplasmosis, blastomycosis, AIDS pneumonia, anorexia nervosa4 etc. Gupta et al., done study with 250 patients with old tubercular cavities and they found 52 patients has fungal growth by serology and sputum examination5. In our patients there were no histories of old tuberculosis. Unlike previous studies, our patient does not have any previous cavity. No documented immunocompromised status other than old age. Active tuberculosis with aspergilloma without pre-existing pulmonary cavity is rare case.

REFERENCES


