



Case report

## A RARE CASE OF PULMONARY ASPERGILLOMA

LS PATIL<sup>1</sup>, PRASAD G UGARAGOL<sup>2\*</sup>, DEEPAK CHINAGI<sup>2</sup>, TIMMANNA GIRADDI<sup>3</sup>.

### AUTHOR DETAILS

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#### Author details:

<sup>1</sup>Professor, <sup>2</sup>Junior Resident/Post graduate, Department of Medicine, BLDEU's Shri BM Patil Medical College and Hospital, Vijayapur,

<sup>3</sup>Registrar, Critical Care Medicine, Manipal Hospitals, Bangalore.

\*Corresponding author email:

Prasad.ugaragol.pu@gmail.com

### ABSTRACT

Pulmonary aspergilloma is unprecedented disorder affecting lung parenchyma in already existing cavity in healed pulmonary tuberculosis patients. Typically, it is resulting from *Aspergillus fumigatus* leading to development of fungal ball. Common presenting complaints are Haemoptysis, Dyspnoea, Cough, Chest pain and Fever. We are reporting a case of Pulmonary aspergilloma a sequel of Pulmonary tuberculosis, has been recognized on basis of clinical findings, chest X-ray, CT thorax in which Fungal ball is seen in pre-existing cavity. It has been managed with antifungal drug Amphotericin B and Itraconazole. It must be differentiated from different clinical entity specifically Lung carcinoma on basis of relevant examination and research to treat successfully.

**Key words:** Aspergilloma, Pulmonary tuberculosis, Amphotericin B, Itraconazole.

### INTRODUCTION

Pulmonary aspergilloma is rare sickness because of *Aspergillus Fumigatus* which affects in pre-existing cavity of healed tuberculosis. It's usually seen in elder patients with history of smoking. And It is also common in the persons with immunocompromised status like Diabetes mellitus, Cystic fibrosis, HIV infected sufferers, prolonged Neutropenia <sup>[1, 2]</sup> here we are reporting this case to elicit various difficulties in diagnosing pulmonary aspergilloma with other mimicking disorder like Bronchogenic carcinoma because it additionally will be having cavity formation <sup>[1]</sup>.

### CASE REPORT

A seventy-eight years old male, came to hospital with complains of occasional cough with expectoration, Breathlessness, left sided chest pain and Haemoptysis for 4 days. And also, he gave history of pulmonary tuberculosis about 2 years back, which has been treated with 6 months routine of antitubercular therapy and recovered. On physical examination, we found out

dull percussion notes and inspiratory crepitations on the left infra-clavicular region. Other systems have been unremarkable on examination. On investigations, in complete blood count, total count; 12750 cu mm, Haemoglobin; 10.6 gm/dl. His erythrocyte sedimentation rate (ESR) was 30 mm in first hour, creatinine was 1.55 mg/dl Serum urea and Electrolytes, random blood sugar were within ordinary limits. Chest radiographs [Figure 1] and computerized tomographic scan (CT scan) of thorax [Figure 2] confirmed a cavitary lesion approximately 43x41 mm in length in upper lobe of the left lung with a mass inside it and a crescentic rim surrounding the mass suggestive of Fungal mass (mycetoma). And on sputum culture was showing as *A Fumigatus*. At the end, he was diagnosed to be as a case of Pulmonary Aspergilloma in healed tuberculous cavity with Ischaemic heart disease. We started out treatment with Intravenous Amphotericin B 10mg in 500 ml Dextrose (7 days) and Oral Itraconazole for six months, he recovered satisfactorily. With follow up after 6 months patient became asymptomatic.

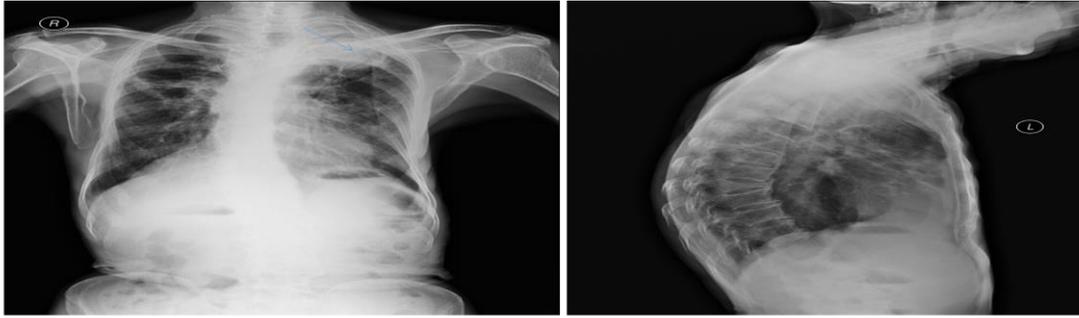


Fig.-1: X-ray chest showing Mycetoma in apex of the left lung with crescentic rim of air (arrow).

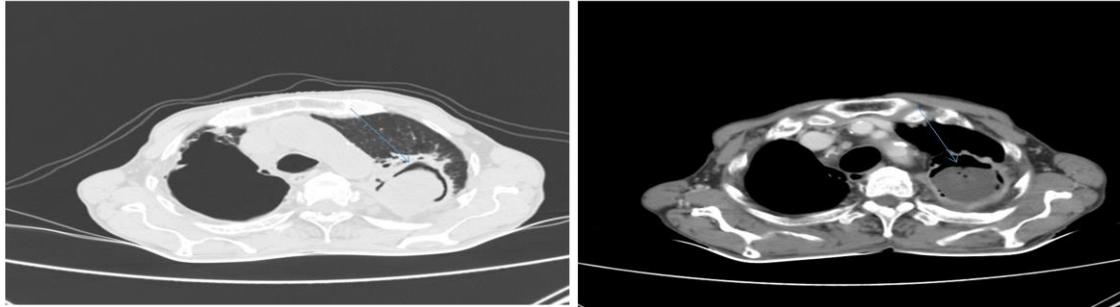


Fig.-2: CT scan of the chest showing a cavitory lesion in upper lobe of the left lung with a mass within it and a crescentic rim surrounding the mass suggestive of mycetoma (arrows).

## DISCUSSION

Pulmonary aspergilloma is affected predominantly in male and usually found to be seen in healed pulmonary tuberculosis [3]. *Aspergillus fumigatus* is most common causative pathogen. however, many different species including *A. flavus*, *A. niger*, *A. nidulans*, *A. terreus* have additionally found to be causative pathogens. maximum of sufferers may be asymptomatic[3]. They will be presenting with cough, fever, haemoptysis [4] Fever is not common symptom. If present can be due to underlying bacterial infection[5,6]. On physical examination, there may be dull note on percussion, bronchial breath sounds at affected part[1]. On chest X ray and CT thorax indicates Pulmonary aspergilloma radiographically seems as a strong rounded mass, mobile, of water density, inside a spherical or ovoid cavity, and separated from the wall of the cavity by an airspace of variable size and shape in preexisting cavity as Fungal ball called air crescent sign[1,2,3]. On CT scan Differential diagnosis for mass in cavity are likely to be hydatid cyst and pulmonary abscess with necrosis[1]. Life threatening Haemoptysis is indicative of surgery, however associated technical difficulties secondary to Obliterated pleural space, indurated hilar structure, Failure of lung tissue to increase after operation, old age and as morbidity and mortality is higher aspect,

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Cavernotomy is indicated in symptomatic high risk patients who aren't suitable for lung resection [3,7]. Medical management includes intracavitary, endobronchial and parenteral route. Common drugs used are Amphotericin B and Itraconazole, Sodium potassium iodide, fluconazole [1,3]. Itraconazole orally powerful drug with lesser toxicity and excessive tissue penetration, effective doses of Itraconazole is commonly two hundred to four hundred mg/d orally with a duration of treatment of 6 to 18 months. [8] If oral therapy is inadequate, Itraconazole and amphotericin B injected percutaneously under CT guidance[9]. In our affected person, we had chosen Intravenous Amphotericin B for 7 days and oral Itraconazole for six months and patient responded to it.

## CONCLUSION

Relevant medical examination and investigation are considered to distinguish pulmonary aspergilloma with other mimicking disorder for proper management.

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