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Post Tubercular ABPA in a known Asthmatic patient

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ABSTRACT

Allergic BronchopulmonaryAspergillosis [ABPA] is a immunologically complex disease. It is encountered in patients with Bronchial Asthma, Cystic Fibrosis.Here we present a case where a known Asthmatic developed ABPA following Treatment for Tuberculosis.

Keywords: ABPA, Asthma,Tuberculosis

Introduction

Allergic Bronchopulmonary Aspergillosis [ABPA] is immunologically complex diseases which elicit Type I and Type III hypersensitivity. Early detection and diagnosis of ABPA is important in view of preventing lung damages, severity of asthma, misdiagnosis of patients for tuberculosis etc.

Case report

A thirty five year old Asthmatic lady came to the chest OP with chief complaints of fever, cough with expectoration of 20 days duration. She had black coloured expectoration and occasionally haemoptysis. The symptoms aggravated during winter and on consuming cold foods or refrigerated foods. Low grade fever was also reported. Her father was also asthmatic. She had been using inhaled corticosteroids for asthma. She also used Anti tubercular treatment for two times for being sputum positive for Acid Fast bacilli.On examination all the vitals was within normal limits. She had bronchi and coarse crepitations in left mammary area. All other systems were normal. When investigated her blood picture was normal. She was positive for C-reactive protein. Post bronchoscopy sputum showed mucor plugs. Serum IgE levels were 6531 IU/l. Allergic profile included Ig E specific for Aspergillus fumigates was 28.40 IU/l. Infiltrates on lower zones on both sides was observed on Chest x-ray. HRCT showed central bronchiectasis which is very much characteristic of ABPA.

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Discussion

Aspergillus is a fungus with a worldwide distribution. This fungus is found in decomposing organic matter and can colonize walls and ceilings where water seepage has occurred. Out of 180 species of aspergillus, aspergillus fumigates is one of the commonest fungus which causes ABPA & severe destructive lung disease. Early diagnosis is essential to prevent the development of end stage lung fibrosis. Imaging and immunological techniques have been crucial in the early diagnosis of the disease. ABPA is often present for years before diagnosis. Lungs and sinuses are the common sites involved & affected by ABPA.

The goals of the treatment are: 1. To limit exacerbations or acute symptoms of ABPA. 2. To eradicate colonization and/or proliferation of A. fumigatus in lumens with bronchiectasis and mucus plugs. 3. To manage symptoms of asthma and 4. Prevention of permanent lung damage.

Therapy includes the following: (1) Anti-inflammatory— oral corticosteroids; (2) Antifungal—Itraconazole; (3) Bronchodilators

- The case here developed ABPA after she had been treated with Antitubercular treatment.
- The seasonal variation could be explained her father had history of asthma.
- She was diagnosed to have ABPA with the following black coloured expectoration, dyspnoea and cough with seasonal variation, episodes of fever.
- She was treated with Antibiotics, oral steroids and bronchodilators. She responded well.

• Anti fungal were not used in this case.
Oral corticosteroids are the therapy of choice in ABPA. Itraconazole may have its role in therapy, especially in cases where oral corticosteroids are contraindicated. In patients requiring high doses of oral steroids Itraconazole may allow a reduction in dose, but should not replace the need of corticosteroid treatment [1].
• Specific host susceptibility seems to be more important in the pathogenesis of ABPA
• Environmental factors [2].

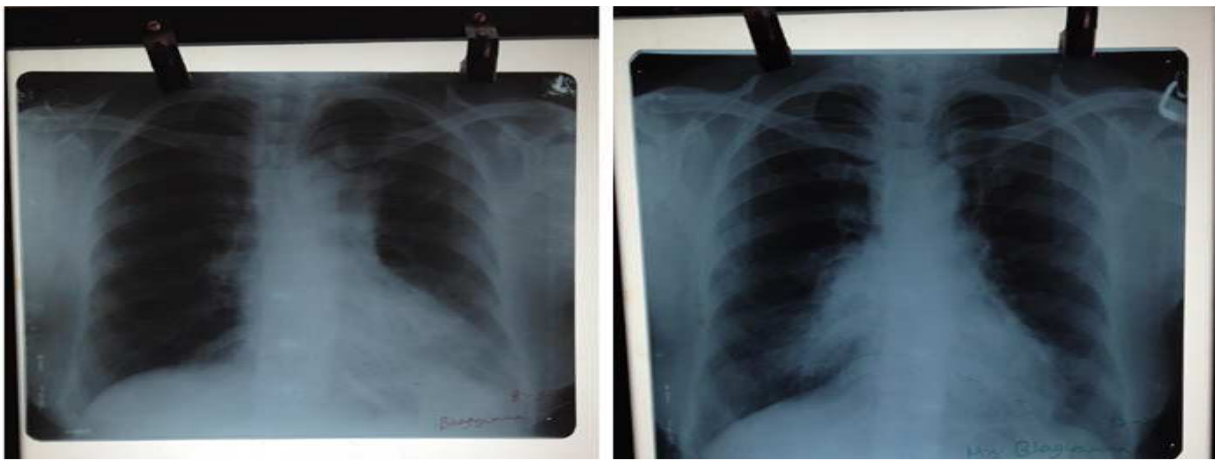

Fig 1:CXR Bilateral Lower zone infiltrations

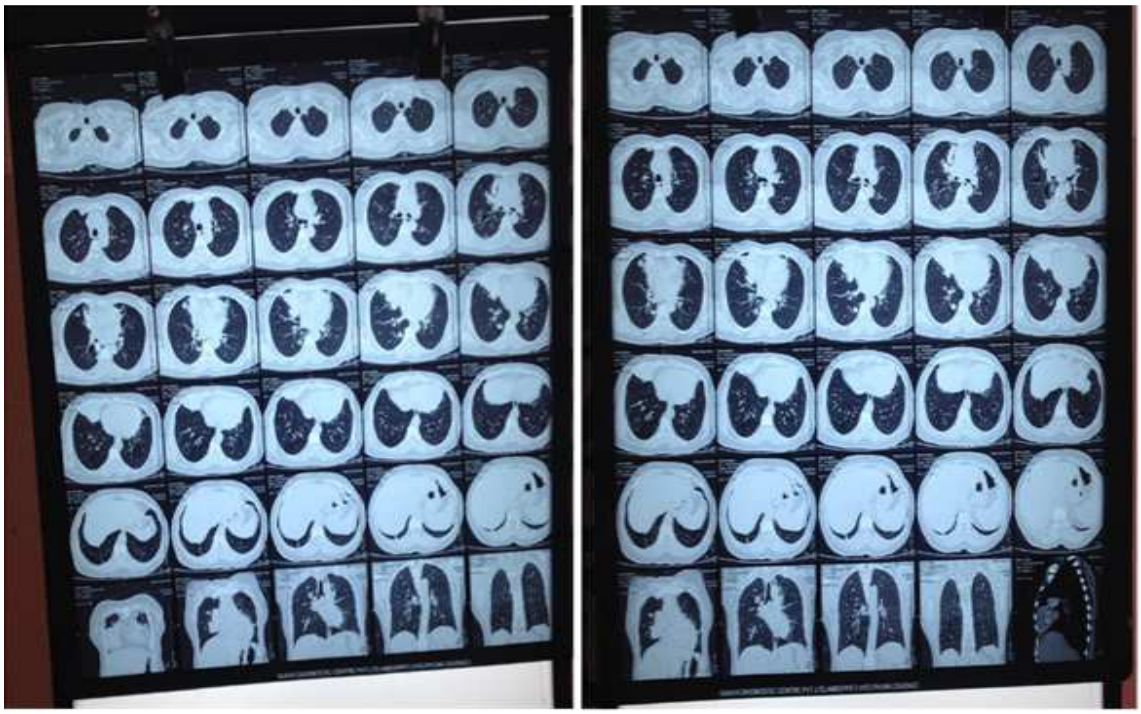

Fig 2:CT Chest Bilateral Lower zone infiltrations with central bronchiectasis.

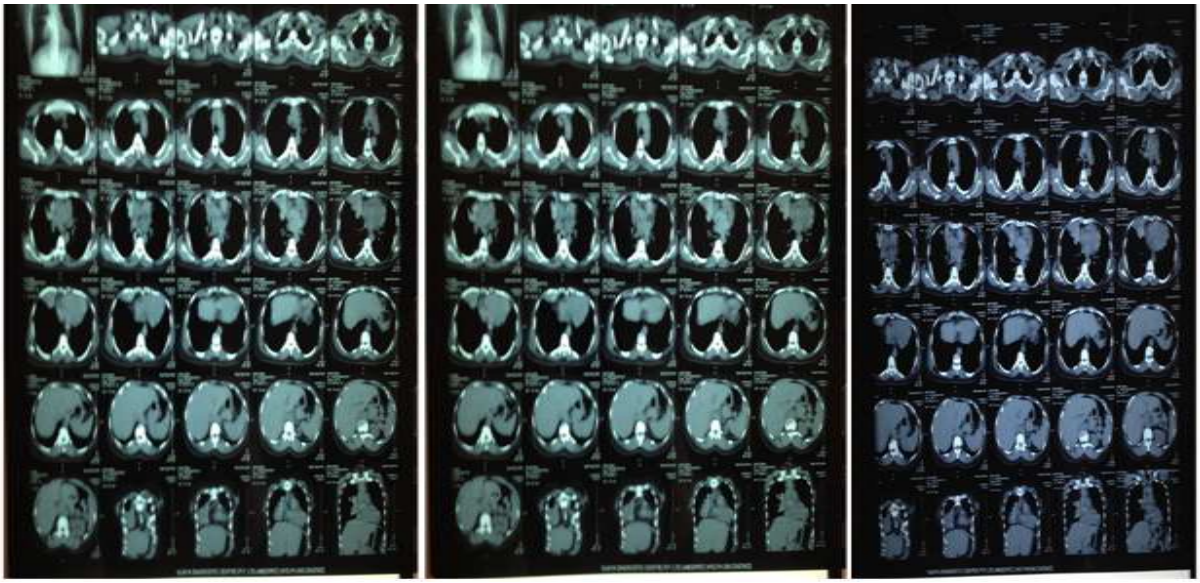

Fig 3:CT Chest Bilateral Lower zone infiltrations with central bronchiectasis.

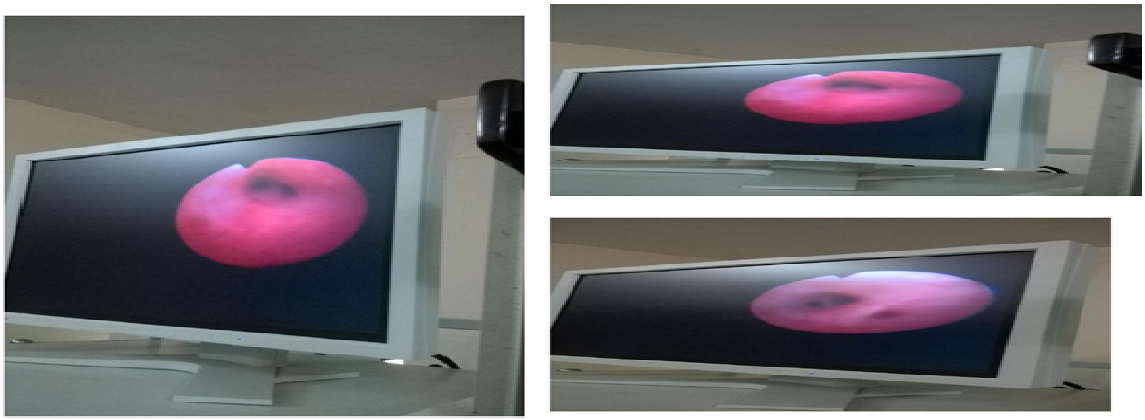

Fig 4: Bronchoscopy Hyperemic edematous mucosa with lower segmental bronchi narrowed.

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