

## Case Report

# *Aspergillus* pseudomembranous tracheobronchitis in an immunocompetent individual: A diagnostic conundrum with therapeutic challenge

Balan Louis Gaspar, Ritesh Agarwal<sup>1</sup>, Kirti Gupta, M R Shivaprakash<sup>2</sup>

Departments of Histopathology, <sup>1</sup>Pulmonary Medicine and <sup>2</sup>Medical Microbiology, Postgraduate Institute of Medical Education and Research, Chandigarh, India

## ABSTRACT

*Aspergillus* tracheobronchitis is an extremely uncommon manifestation of *Aspergillus* infection. Most of the cases described in the literature are in the immunosuppressed individuals and is almost uniformly fatal. Immunocompetent individuals do manifest the disease, but the disease if diagnosed early can be appropriately treated and thus can be life-saving. Here, we describe a similar case which was diagnosed only at autopsy.

**KEY WORDS:** *Aspergillus fumigatus*, immunocompetent, pseudomembranous tracheobronchitis

**Address for correspondence:** Dr. Kirti Gupta, Department of Histopathology, Postgraduate Institute of Medical Education and Research, Chandigarh, India.  
E-mail: kirtigupta10@yahoo.co.in

## INTRODUCTION

*Aspergillus* is a ubiquitous fungus with no specific geographic distribution. *Aspergillus fumigatus* accounts for most of the invasive infections in humans and is the most commonly encountered species in pulmonary infections. The pathogenetic manifestations of *Aspergillus* infection depend upon its interaction with the host. The spectrum of lung manifestations ranges from hypersensitivity (asthma) to invasive aspergillosis. The diagnosis of common forms of invasive pulmonary aspergillosis (IPA) is relatively straight forward in the appropriate clinical setting (immunosuppression); whereas the diagnosis of uncommon forms of invasive aspergillosis especially pseudomembranous tracheobronchitis is difficult and the disease is uniformly fatal if not recognized early. We describe a rare case where this proved to be a diagnostic red herring in an immunocompetent individual that was resolved only at the time of autopsy.

## CASE REPORT

A 55-year-old gentleman who was a nondiabetic and nonhypertensive presented with fever with mucopurulent expectoration of 13 days and increasing dyspnea of 10 days duration. There was no associated chest pain, wheeze, hemoptysis or any other complaints. There was no history of diabetes, hypertension. He gave a history of receiving treatment for pulmonary tuberculosis 25 years ago. He was an occasional alcohol user and a bidi smoker for 25 years. Before his admission to our institute, he had received oral co-amoxiclav in view of community-acquired pneumonia. As his condition did not improve, he was referred to our institute where on examination was found to be conscious and oriented with normal blood pressure, tachycardia, tachypnea, and SpO<sub>2</sub> of 87% (FiO<sub>2</sub> 0.21). There was no pallor, icterus, cyanosis, clubbing, significant lymphadenopathy, or pedal edema. Jugular venous pressure was normal. Examination of the respiratory system revealed bilateral wheeze and extensive crepitations involving all the lung

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