

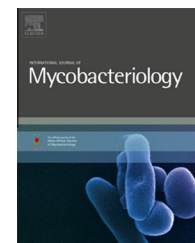
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History of treated pulmonary tuberculosis will also be an underlying symptom of opportunistic aspergillosis by *Aspergillus flavus*: A case report

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ABSTRACT

Introduction: *Aspergillus* species as cosmopolitan fungi with remarkable virulence factors were found to be agents of pulmonary aspergillosis in patients with impaired immunity. The formed cavity of some previously treated lung diseases, such as tuberculosis, sarcoidosis and pneumoconiosis, is usually predisposed to the development of aspergillosis.

Pulmonary aspergillosis (PA) is an uncommon disease which is characterized by hemoptysis, malaise, fever, cough, weight loss and nonspecific radiographic manifestations, including an oval or round mass with a radiolucent halo or crescent of air, a focal consolidation, and cavitary lesions.

Case presentation: This study presents the case of a 54-year-old woman with dyspnea alongside a history of treated pulmonary tuberculosis (PTB) by ATT 2 years ago. X-ray confirmed the presence of a rounded mass in a surrounding cavity in the lung. Tracheobronchial and chest CT images of the patient showed cavities with tuberculous nodules. Clinical symptoms of the patient were fever, malaise, anorexia, weight loss, chest pain, cough and dark mucus sputum. *Aspergillus* sp. was detected primarily as branching hyaline hyphae in direct examination of the sputum by calcofluor-white staining. The sample was positive with culture as well. *Aspergillus flavus* was identified in culture and confirmed by polymerase chain reaction (PCR) and sequencing of the ITS region of rDNA and β -tubulin of fungus. The patient signed an agreement for reporting her case as a medical document in journals or in conferences.

Conclusion: The importance of tuberculosis (TB) in the development of aspergillosis, even after treatment, has been highlighted by multiple studies. Microbiological and molecular evaluation are needed to detect PA quickly and accurately. The WHO reported about 8.8 million new cases of TB in 2010. Therefore, it is essential to focus more on monitoring of diagnosis and treatment of PA.

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