

Concomitant diagnosis of asthma and allergic bronchopulmonary aspergillosis in a previously healthy 26-year old Afghani male

Fotis Sampsonas¹, Matthaïos Katsaras¹, Ourania Papaïoannou¹, Theodoros Karampitsakos¹, Loukas Kakoullis², Argyrios Tzouvelekis¹

INTRODUCTION

Allergic bronchopulmonary aspergillosis (ABPA), caused by *A. fumigatus*, occurs in patients with a history of asthma or cystic fibrosis. The diagnosis of asthma usually precedes ABPA for over 10 years^{1,2}. We present a case of concomitant diagnosis of ABPA and asthma in a 26-year-old immigrant from Afghanistan.

METHODS

A 26-year-old male presented with a 3-week history of dyspnea on exertion, chest tightness and productive cough with excretion of copious purulent secretions. The patient did not report fever, weight loss or haemoptysis. He had no history of asthma or atopy. Physical examination revealed a respiratory rate of 19/min and SpO₂ of 95% on room air, polyphonic wheezing, crackles in middle lung zones and significant digital clubbing.

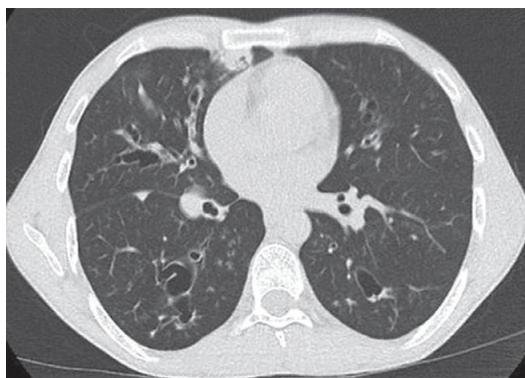
RESULTS

Laboratory results were significant for an eosinophil count of 2350 cells/ μ L and IgE levels were above the measurable amount of 10.000 IU/mL. Sputum Gram and Ziehl–Neelsen stains were negative. PPD reaction was 16 mm. High resolution CT of the chest revealed bilateral cylindrical and cystic bronchiectasis with finger-in-glove sign, mucous plugs, and a tree-in-bud pattern (Figure 1). Spirometry revealed an obstructive profile with a post-bronchodilation FEV₁ of 55%, FEV₁/FVC of 67% and reversibility above 12% and 200mL. BAL Ziehl–Neelsen stain and PCR for tuberculosis were negative. Direct microscopy revealed the presence of hyphae, confirmed to be *A. fumigatus* (Figure 2). Specific *Aspergillus* IgE and IgG titers were increased. The patient received oral corticosteroids and itraconazole; his symptoms improved, and he was discharged.

CONCLUSIONS

Although a diagnosis of asthma usually precedes ABPA for more than a decade¹, this case demonstrates that ABPA and asthma can present concomitantly in patients with unremarkable past medical history.

Figure 1. High resolution CT of the chest



AFFILIATION

1 Department of Respiratory Medicine, University Hospital of Patras, Patras, Greece
2 Department of Internal Medicine, Nicosia General Hospital, University of Cyprus Medical School, Nicosia, Cyprus

CORRESPONDENCE TO

Fotios Sampsonas. Department of Respiratory Medicine, University Hospital of Patras, 26504, Rion, Patras, Greece.
E-mail: fsampsonas@gmail.com

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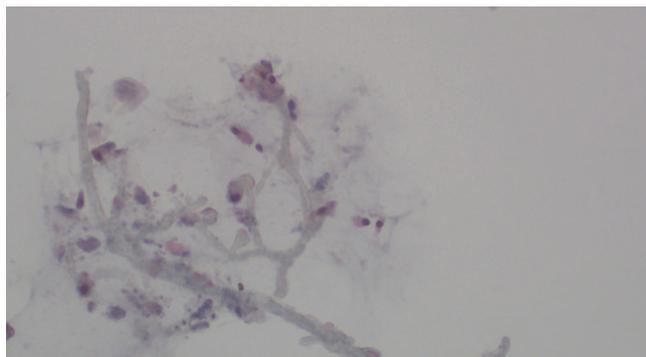
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Figure 2. Direct microscopy revealed the presence of hyphae, confirmed to be *A. fumigatus*



CONFLICTS OF INTEREST

The authors have completed and submitted the ICMJE Form for Disclosure of Potential Conflicts of Interest and none was reported.

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DATA AVAILABILITY

The data supporting this research cannot be made available for privacy reasons.

PROVENANCE AND PEER REVIEW

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