

Images in Infectious Diseases

Allergic bronchopulmonary aspergillosis presenting as high-attenuation mucous impaction

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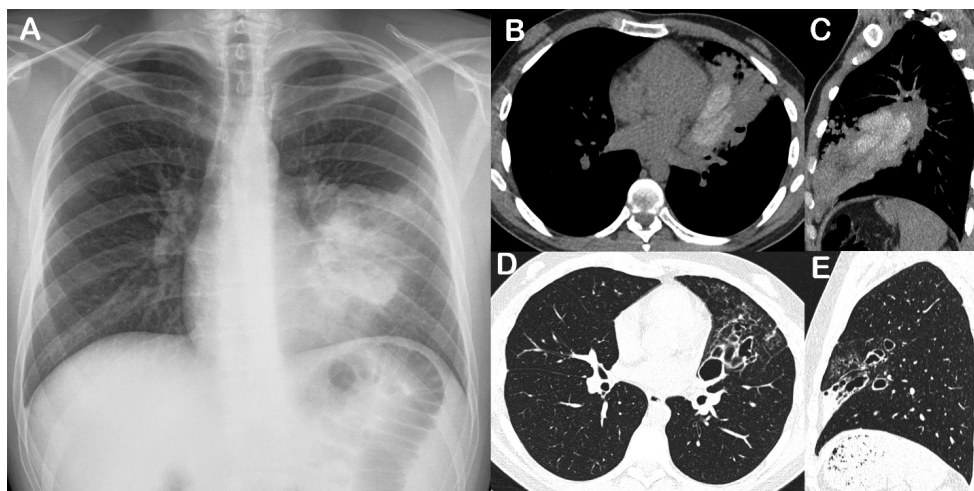


FIGURE 1: (A): Posteroanterior chest radiograph demonstrating heterogeneous opacity in the left lung. Chest CT images with axial (B) and sagittal (C) reconstruction showing heterogeneous consolidation in the lingula, with branching tubular opacities corresponding to areas of high-attenuation mucoid impaction inside dilated bronchi. (D, E) Follow-up CT images obtained 6 months later showing bronchiectasis persistence and resolution of the hyperdense mucous impaction.

A 49-year-old man was admitted to our department with complaints of shortness of breath and wheezing. He had previously received irregular asthma treatment without improvement. A chest radiograph showed a heterogeneous opacity in the left lung (Figure 1A). Chest computed tomography (CT) revealed central bronchiectasis in the lingula with hyperdense mucous impaction (Figures 1B and 1C). Laboratory tests revealed a total serum immunoglobulin E concentration of 2650 IU/ml, eosinophilia (750 cells/mL), and *Aspergillus* skin test positivity. The final diagnosis was allergic bronchopulmonary aspergillosis (ABPA). The patient was treated with oral corticosteroids and itraconazole, which improved his asthma symptoms. Follow-up CT performed six

months later showed bronchiectasis persistence and resolution of the hyperdense mucous impaction (Figures 1D and 1E).

ABPA is a complex pulmonary disorder caused by an immune reaction to antigens released by *Aspergillus fumigatus*, a fungus that colonizes the tracheobronchial trees of patients with asthma and cystic fibrosis. It presents clinically with refractory asthma, hemoptysis, and systemic manifestations, including fever, malaise, and weight loss. Radiologically, it presents with central bronchiectasis and recurrent episodes of mucoid impaction. The mucus plugs in ABPA are generally hypodense but can be hyperdense on CT. The presence of branching tubular opacities, corresponding to dilated bronchi containing hyperdense mucus, is a characteristic, if not pathognomonic, finding of ABPA¹⁻³.

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Received 15 July 2021

Accepted 19 August 2021

AUTHORS' CONTRIBUTION

BH, PP and EM contributed significantly to the work, and have read the manuscript and approved its submission. BH and EM took

part in conception of the manuscript and data acquisition. BH and PP contributed to the analysis and interpretation of data. EM drafted the manuscript and reviewed the literature.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

FINANCIAL SUPPORT

None.

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