

Treatment outcome in allergic bronchopulmonary aspergillosis complicating asthma

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A 37 year old man, working in a bakery, presented with a two week history of wheeze, asthenia, fatigue, persistent low-grade fever, productive cough and shortness of breath. His symptoms initiated following a single exposure to clouds of flour dust inside the factory. The cough and wheeze were worst at night and early in the morning. The patient had no precedent history of respiratory or even an atopic disease. On inspection there was diffused audible expiratory wheeze. Spirometry test, revealed a reversible airway obstruction with a change in forced expiratory volume in the first second of over 22 percent and a change in volume of 300 milliliters, peak expiratory flow 60 percent of predicted value. Based on epidemiological data in the area, specific blood tests showed high total immunoglobulin E levels of 1532 kilo units per litre, elevated eosinophil count of 1.45×10^9 per litre and strongly positive aspergillus fumigatus specific immunoglobulin E 39.9 kilo units per litre. Sputum culture grew aspergillus fumigatus. Using a bronchoscope, cytological examination of bronchoalveolar lavage fluid showed characteristic branching of fungal hyphae. Based on the protocol, the male patient received specific asthma treatment, an inhaler containing the active substance called beclometasone dipropionate 250 micrograms once daily, but for long-term-use. Also, because of the confirmed diagnosis of allergic bronchopulmonary aspergillosis, an immediate treatment¹ was started with daily-oral Prednisolone 20 milligrams + Itraconazole 200 milligrams. In a few weeks, his general symptoms resolved rapidly with improvement in lung function and total immunoglobulin E substantially decreased. Due to the fact that the diagnosis of allergic bronchopulmonary aspergillosis was quickly discovered and the treatment was immediately administered, after six months of therapy, a follow-up computed chest tomography showed almost complete resolution of the abnormalities.

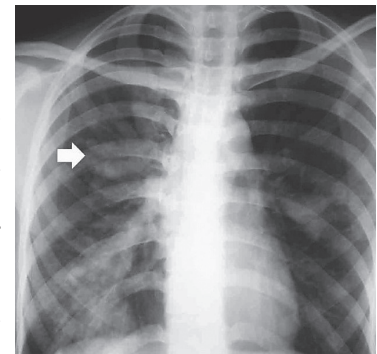


FIGURE 1. Chest radiography showed mucoid impaction with the classic finger in glove pattern.

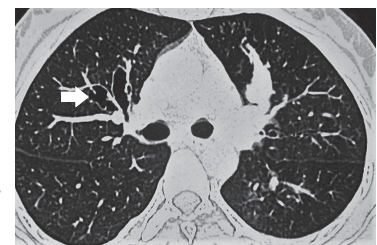


FIGURE 2. High resolution computed chest tomography, mucoid impaction and shows the classic presentation of central bronchiectasis.

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