

PULMONARY ASPERGILLOMA : A CASE REPORT

Bir Akciğer Aspergilloma Vakası

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Summary: Pulmonary aspergilloma, most commonly presenting as a secondary invasion of pre-existing cavitory disease, is a rare disease, and may mimic a perforated hydatid cyst. In our department, 28-year-old female patient with pulmonary aspergilloma has been reported. The most common presenting symptoms of the patient were cough, chest pain, massive sputum production, pyrexia, and hemoptysis. The patient had a complicating pre-existing pulmonary disease. The patient's tomogram showed a rounded mass with hydroareric level in the posterior segment of the lower lobe. With the diagnosis of perforated hydatid cyst, the patient underwent thoracotomy. Excision of cystic cavity and capitonnage were performed operatively. Medical treatment with intravenous amphotericin B was started postoperatively, because the pathological specimen had been reported as aspergilloma.

Key Words: Pulmonary aspergilloma.

Özet: Pulmoner aspergilloma, sıklıkla önceden mevcut bir hastalığın sekonder invazyonu olarak görülen nadir bir hastalıktır ve perfore bir hidatik kisti taklit edebilir. Kliniğimizde yatan pulmoner aspergillomalı 28 yaşında bir kadın hasta bildirildi. Hastanın en mutad semptomları öksürük, göğüs ağrısı, bol balgam çıkarma, ateş ve hemoptiziydi. Hastanın toraks tomogramı sol alt lob posterior segmentte hava-sıvı düzeyli yuvarlak bir kitle gösterdi. Hasta perfore hidatik kist tanısıyla torakotomiye alındı. Ameliyatta kistik kavite eksizyonu ve kapitonnaj yapıldı. Patolojik spesmen aspergilloma olarak bildirildiği için ameliyat sonrası dönemde intravenöz amfoterisin B başlandı.

Anahtar Kelimeler: Pulmoner aspergilloma

The genus *Aspergillus* was first described by Michelli in 1729, and the first recognized aspergillois infection was reported by Sluyter in 1847. Pulmonary aspergillomas, which are fungus balls arising in pre-existing cavities, are the most common form of the disease in most patients, and the most common species causing allergic and invasive disease is *Aspergillus fumigatus* (1, 2).

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Because of the risk of hemoptysis, resection for treatment of pulmonary aspergilloma has been recommended by some authors (2, 6, 8). We reported our experience with the surgical management plus medical treatment of pulmonary aspergilloma which had been thought as a complicated hydatid cyst.

CASE REPORT

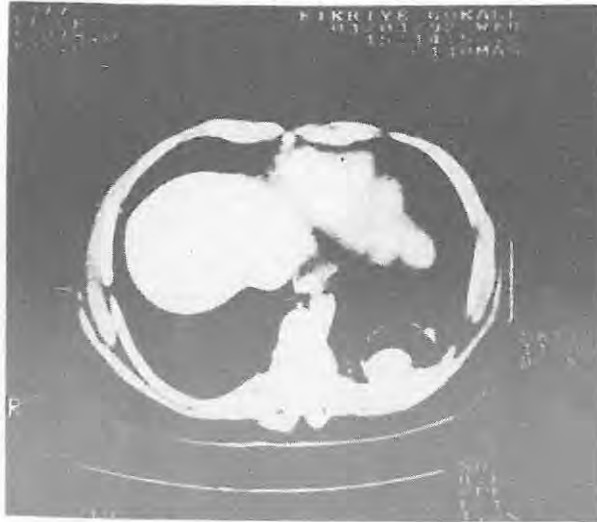
A 28 - year-old female was admitted to our department by complaints related to cough, chest pain, massive sputum production,

Pulmonary Aspergilloma: AKÇALI Yiğit*

pyrexia, and hemoptysis. The patient had complicating pre-existing pulmonary disease. The patient's thoracic tomogram showed a rounded mass with air-containing cavity in the posterior segment of the left lower lobe (Figure 1). Routine laboratory tests were nor-

producing a tangled mass of septated hyphae, blood elements, and debris that has also been variously named a mycetoma or fungus ball (2, 9).

The diagnosis of aspergilloma can usually be



Figur 1. Aspergilloma of the lower lobe of the left lung in a 28-year-old woman. Note thickwall cyst with hydro-aeric level.

mal, with the diagnosis of complicated hydatid cyst, the patient underwent thoracotomy. In operation, evacuation and excision of cystic cavity, and capitonnage were carried out. Medical treatment with intravenous amphotericin B was administered postoperatively, since the pathological specimen had been reported as aspergilloma. The patient discharged in good condition.

DISCUSSION

The intracavitary aspergilloma occurs as uncommon opportunistic infection in preexisting cavities, which occur from areas of lung tissue that have been destroyed by tuberculosis, sarcoidosis, bronchiectasis, neoplasms, pulmonary abscesses, and infarcts, and various lung mycoses. It is colonized by the fungus,

suspected from the chest roentgenogram, plain tomogram or computed tomogram. The most characteristic radiological changes are those of a fungus ball with an associated crescent of air (2, 5). Sometimes for diagnosis more complicated radiological studies such as bronchography and pulmonary angiography are also performed (5). Definitive diagnosis is established by demonstrating a culturing aspergillus from the resected specimen (2). Consequently, aspergilloma must be identified in patients who fullfilled one of the following criteria: (1) chest roentgenograms show an intracavitary mass with a "crescent air" and either *Aspergillus* is demonstrated in sputum or there is a positive *Aspergillus* serum precipitin test, and (2) there is gross and histological evidence of

*Pulmonary Aspergilloma**: AKÇALI Yiğit

aspergilloma in resected lung tissue (9). Since lung cancer occurred in patients with aspergilloma, cancer must always be suspected in patients with suspicious masses (2, 9).

Because the natural history of an aspergilloma is not well, the mode of treatment remains controversial. Treatment of pulmonary aspergilloma must be individualized. Medical treatment consists of intravenous administration of amphotericin B, nystatin, hydroxystilbamidine, and endobronchial instillation of amphotericin B and sodium iodide (2, 4, 9). Embolization of the bronchial arteries in patients with massive or repeated hemoptysis caused by aspergilloma have been reported (7).

Surgical resection of aspergilloma has been recommended by numerous authors (2, 4, 8, 9). The main indication is either or repeated hemoptysis (1, 2, 4-6, 8, 9). The others include increased cough and sputum production, fever, weight loss, progressive roentgenographic changes, and an indeterminate mass (2, 4). Surgical methods include a wedge resection, major pulmonary resections such as lobectomy and pneumonectomy, thoracoplasty, cavernostomy, obliteration of the cavity by transposing muscle from the chest wall into the cavity (2, 3, 5).

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