A Case of Behcet Disease Characterized by the Appearance of a Mass in the Lungs

Akciğerde Kitle Görünümlü Behçet Hastalığı Vakası

Behcet Disease Mass in the Lung

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Öz

42 yaşında erkek hasta on gündür devam eden sağ omuz ve göğüs ağrısı, öksürük hemoptizi şikayetiyle hastaneye başvurdu. Hastanı titremekle yükselen 38°C ateşi vardı. Laboratuvar incelemesinde; lökosit:21.1 K/uL(91.4 % nötrofil), trombosit:564 K/uL, hemoglobin:13.8 g/dl, C-reactive protein: 8.61 ve eritrosit sedimentation hızı :104 mm/s olarak tespit edldi.Hastanın fizik muayenesi doğaldı. Öz geçmişinde 30 paket/yıl sigara kullanımı ve yedi yıldır Behçet Hastalığı mevcuttu. Pa akciğer grafisinde sağ üst paratrakeal alanda dansite artışı mevcuttu. Çekilen toraks BT'de sağ akciğer üst lobda 55x34 mm ebadında lobule konturlu kitle lezyon görüldü. Hastaya bronkoskopi yapıldı fakat endobronşial lezyon ya da kanama odağı görülmedi. Transtorasik ince iğne aspirasyon biyopsisiyle kitle lezyondan biyopsi alındı. Patoloji sonucu nekrotizan vasculit olarak rapor edildi. Bu sonuç Behçet hastalığının akciğer tutulumu ile uyumluydu. Tedavi olarak immunsupresif tedavi başlandı. 2 ay sonra çekilen kontrol toraks bilgisayar tomografide lezyonun kaybolduğu görüldü.

Anahtar Kelimeler

Behçet Hastalığı; Nekrotizan Vaskülit; Hemoptizi

Abstract

A 42-year-old male patient was admitted to the hospital with a cough, hemoptysis, and complaints of pain in his right shoulder and chest for 10 days. The patient had intermittent fever 38°C with chills. Laboratory results were: leucocytes:21.1 K/uL, platelets:564 K/uL, hemoglobin:13.8 g/dl, C-reactive protein: 8.61, and erythrocyte sedimentation rate: 104 mm/h. Physical examination was normal. The patient had a history of smoking 30 packets/year and Behcet disease (BD) for seven years. Chest radiography showed an increased density on the right paratracheal area. Thorax computed tomography (TCT) revealed a lobulated mass lesion 55×34 mm on the upper lobe of the right lung. Bronchoscopy was performed but neither a mass nor a bleeding focus was detected. A CT-guided transthoracic fine-needle aspiration biopsy was performed. The pathological examination was reported as "necrotizing vasculitis." These results were compatible with pulmonary involvement of the BD. Immunosuppressive therapy was initiated; after 2 months, a control TCT was within normal limits.

Keywords

Behçet Disease; Necrotizing Vasculitis; Hemoptysis

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Introduction

Bechet's disease is a chronic inflammatory disorder of unknown etiology characterized by recurrent attacks. It was first described by Hulusi Behçet in 1937. Except for mucocutanous lesions, BD is a multisystem disorder affecting the musculoskeletal system, the vascular system, the gastrointestinal tract, the lungs, and the eyes [1,2]. Pulmonary parenchymal involvement of BD is not common. In the present case, we discuss the challenges in the stage of diagnosis of BD.

Case Report

A 42-year-old male patient was admitted to the hospital with a cough and hemoptysis and complaints of pain in his right shoulder and chest; the patient's symptoms had persisted for nearly 10 days. The patient reported intermittent fever with chills; his fever measured in the clinic was 38°C. Laboratory results were as follows: leucocytes: 21.1 K/uL (91.4% neutrophils), platelets:564 K/uL, hemoglobin:13.8 g/dl, C-reactive protein: 8.61, and erythrocyte sedimentation rate: 104 mm/h. Biochemical tests were normal.

Upon physical examination, bilateral hemithorax was equally active in breathing; rale and rhonchus were not heard. The patient's other system examinations were normal. The patient had a history of smoking 30 packets of cigarettes per year, and he was still an active smoker. The patient had been diagnosed with Behcet disease (BD) for nearly seven years. On the basis of the history that we obtained, we learned that the patient did not receive checkups on a regular basis because of his BD, and he did not receive regular treatments for his disease. We consulted the patient with the dermatology clinic. The dermatology consultation report stated that the patient had a history of recurrent oral and genital ulcers and that the previous pathergy test was positive. The upper zone of the right paratracheal area revealed an increase in density in a chest radiograph (Figure 1). Empirical antibiotic treatment was initiated. The patient underwent a CT scan of his thorax because of complaints of hemoptysis and his history of smoking. We observed a lobulated mass lesion 55×34 mm in the posterior segment of the upper lobe of the right lung in the pleural neighborhood (Figure 2a-b). We accordingly performed a bronchoscopy; neither a mass nor a bleeding focus was detected. A CT-guided transthoracic fine-needle aspiration biopsy was performed. Necrotizing vasculitis signs were revealed in a pathological examination of the obtained material. Because of the patient's BD diagnosis, these findings were believed to be consistent with pulmonary involvement of the disease. Immunosuppressive therapy was initiated; after 2 months of treatment, a control thorax CT was within normal limits (Figure 3).

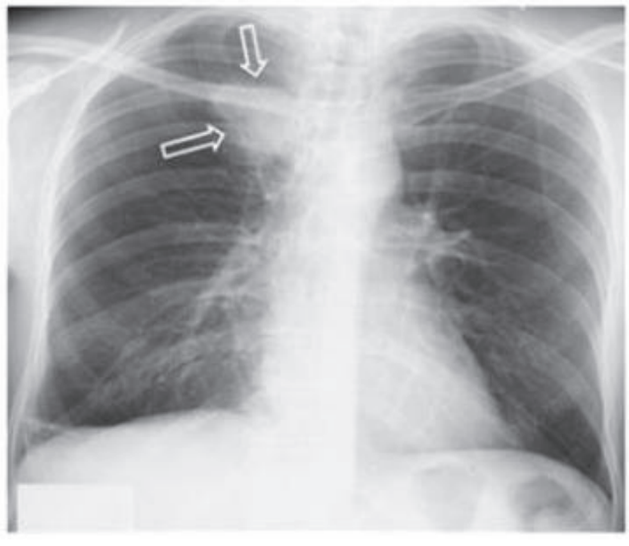

Figure 1. Posterior anterior chest graphy showed right paratracheal mass lesion (white arrows).

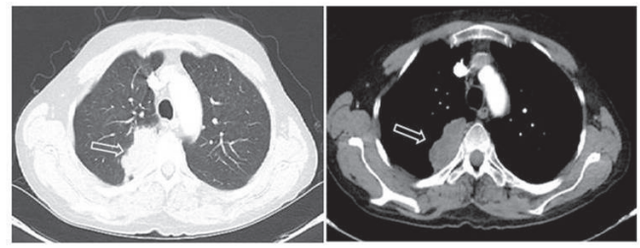

Figure 2. Thorax computed tomography images showed a lobulated mass lesion 55×34 mm in diameter at the posterior segment of the upper lobe of the right lung (white arrows).

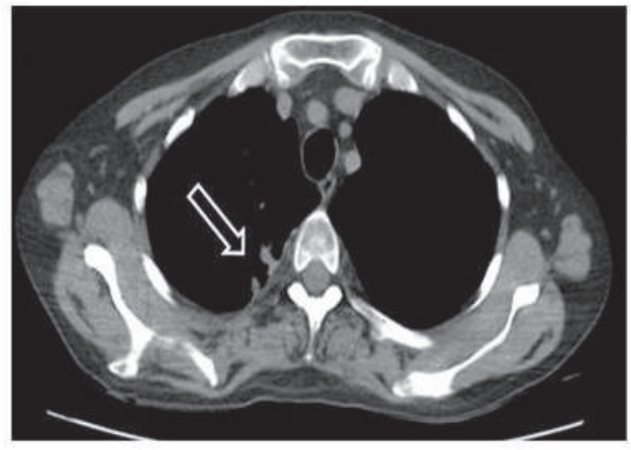

Figure 3. Control thorax computed tomography image was normal after medical treatment (white arrow).

Discussion

Pulmonary involvement has been reported in 1.0-7.7% of all patients with BD [2]. Pulmonary artery aneurysms, arterial and venous thrombosis, pulmonary infarction, recurrent pneumonia, bronchiolitis obliterans organized pneumonia, pleural effusion, and mediastinal lymphadenopathy are the primary features of pulmonary involvement in BD [2,3]. Patients exhibit symptoms such as episodes of dyspnea, cough, chest pain, fever, phlegm, and hemoptysis [3,4]. Hemoptysis, the most frequent symptom in BD with pulmonary involvement, is life-threatening. In this case, the patient's most important reason for admission was hemoptysis. A conventional chest radiography is the most common diagnostic method used to evaluate pulmonary involvement and in follow-up treatment [3,5]. The apparent pulmonary artery, the oligemic area resulting from perfusion defects (which occur due to the occlusion of the pulmonary artery branches), and the appearance of hilar and perihilar masses depending on aneurysms can be detected in chest radiography [6]. We did not observe chest X-ray findings indicative of pulmonary artery pathology. High-resolution CT data are useful for distinguishing parenchymal lesions resulting from pulmonary artery aneurysms, infarct, and pulmonary artery thrombus from other le-

sions. Spiral CT angiography is the best radiological method for evaluating pulmonary problems. In a contrast-enhanced thorax CT of the patient, we observed a 55 mm ×34 mm lobulated mass lesion in the posterior segment of the right upper lobe in the pleural neighborhood. Because of the characteristics of the lesion and the patient's history of smoking, we performed a bronchoscopy to look for malignancy. Pathology was not detected in the bronchoscopy, and we performed a transthoracic CT-guided biopsy. Histopathological examination of biopsies or surgical specimens is another useful method for diagnosing BD [3]. In the biopsy specimen taken from the patient, we found necrotizing vasculitis.

In the literature, pulmonary involvement in BD is typically in the form of pulmonary artery aneurysms and pulmonary vascular lesions; parenchymal involvement has rarely been reported [5]. Pulmonary parenchymal involvement, on the other hand, shows the activation of the disease [6]. In this case, pulmonary parenchyma was normal, and there was no evidence of pulmonary vascular involvement in the patient's contrast-enhanced thorax CT. Considering that the patient is a current smoker, the upper lobe lesion in the posterior segment was interpreted as an indicator of malignancy.

Anti-inflammatory and/or immunosuppressive drugs are used for the treatment of BD based on the severity of disease [2]. Medical treatments consisting of corticosteroids and cyclophosphamide have been found to be successful [2,4]. Our patient had been diagnosed with BD but had not received regular treatment for his condition. Immunosuppressive therapy was initiated. Upon follow-up, we found that the patient's clinical and radiological findings had improved.

Conclusion

Bechet's disease is common in Turkey, and pulmonary involvement is a rare form of pulmonary vascular involvement. Pulmonary parenchymal involvement is even rarer. Since hemoptysis may be the first symptom, BD should be kept in mind, and relevant research should be conducted when a patient with hemoptysis arrives at the hospital without exhibiting additional symptoms. In this case, the patient's history of smoking and the detection of a lesion in the thorax CT had been interpreted as an indicator of possible malignancy, but the biopsy results revealed vasculitis based on the histopathological examination, which was an unexpected finding.

Competing interests

The authors declare that they have no competing interests.

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