

Case report-Olgu sunumu

Coexistence of pulmonary tuberculosis and hydatid cyst

Eş zamanlı görülen kist hidatik ve akciğer tüberkülozu

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Abstract

Pulmonary hydatid cyst and tuberculosis are frequent but rarely coexistence diseases in our country. Twenty-year-old male patient admitted with cough, fever and chest pain. In his radiology, on the right lung anterobasal segment uniformly bounded, thick-walled cavity with heterogeneous density in the size of ~ 4x5 cm and next to it, nodular infiltrating views have been found. Cystotomy-capitonnage and wedge resection have been applied to the area of nodules. Histopathological examination has been reported as the coexistence of hydatid cyst and tuberculosis. We think that in the frequent places of these two diseases, in the event of establishment of tuberculosis if the operation isn't a matter of urgency operating the patient after the two-week antituberculous treatment will decrease the postoperative complications.

Keywords: Pulmonary, hydatid cyst, coexistence, tuberculosis

Özet

Pulmoner kist hidatik ve tüberküloz ülkemizde sık görülen ve nadiren birlikte olan iki hastalıktır. Yirmi yaşında erkek hasta öksürük, ateş ve göğüs ağrısı şikayetleri ile başvurdu. Radyolojisinde sağ akciğer alt lobda anterobazal segmentte ~4x5 cm boyutlarında düzgün sınırlı, kalın cidarlı heterojen dansitede kaviter lezyon ve komşuluğunda nodüler infiltratif görünümler saptandı. Hastaya kistotomi-kapitonaj ve nodüler alana wedge rezeksiyon yapıldı. Histopatolojik inceleme pulmoner kist hidatik ve tüberküloz birlikteliği olarak rapor edildi. Bu iki hastalığın sık görüldüğü yerlerde, tüberkülozun tespit edilmesi durumunda operasyon aciliyet göstermiyorsa iki haftalık antitüberküloz tedavinin ardından hastanın opere edilmesinin postoperatif komplikasyonları azaltacağını düşünmekteyiz.

Anahtar sözcükler: Akciğer, kist hidatik, eş zamanlı, tüberküloz

Geliş tarihi/Received: May 03, 2011; **Kabul tarihi/Accepted:** October 04, 2011

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Introduction

Pulmonary hydatid cyst and tuberculosis are frequent and significant health problem in our country [1-4]. Both diseases are often seen in the lung and clinical pictures resemble to each other from time to time. A combination of the two is a very rare occasion, and the findings may be misleading. In this report, it is aimed to present pulmonary hydatid cyst and a case of pulmonary tuberculosis in the same localization in the light of literature.

Case report

Twenty-year-old male patient admitted because of cough, fever and chest pain. In his physical examination 38.7°C fever and decrease respiratory sounds in right lower zone have been detected. In laboratory evaluation white blood cell count was 20600 K/UL, eosinophil count was 0.5%, neutrophil count was 82.2%, monocyte count was 9.9%, thrombocyte count was 427000 and erythrocyte sedimentation rate was 14 mm/hour. Indirect hemagglutination test (IHA) was negative in the preoperative evaluation. In his radiology, on the right lung anterobasal segment uniformly bounded, thick-walled cavity with heterogeneous density in the size of ~ 4x5 cm and next to it, nodular infiltrating views have been found [Figure 1].

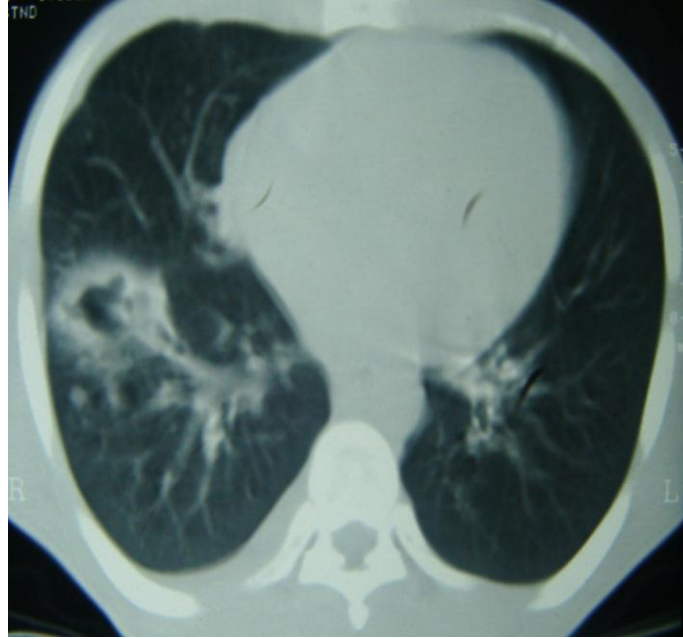


Figure 1. Thorax-CT of the right lung lower lobe segment anterobasal approximately 4x5 cm in size with smooth margins, heterogeneous density thick-walled cavitory lesion, and adjacent to the show nodular infiltrative appearance.

Right lateral thoracotomy has been applied to the patient taken under an operation with the diagnosis of pulmonary hydatid cyst. In the exploration of the right lung lower anterobasal segment hydatid cyst with the size of 4x5x5cm and adjacent to it, hard, ragged edge nodular lesions have been observed. Cystotomy-capitonnage and wedge resection have been applied to the area of nodules. Material of wedge resection was only sent for histopathologic review. Material of wedge resection was not sent to microbiology laboratory for microscopic examination and culture. The patient was treated with postoperative Albendazol. Histopathological examination has been reported as the association hydatid cyst and tuberculosis. After then, the patient without complications started to 8th day quartet of anti-tuberculosis treatment and has been discharged. Health status of the patient who is taken under antituberculosis treatment for six months is good.

Discussion

Hydatid cyst is a parasitic disease caused by *Echinococcus granulosus*. The incidence in our country is 50-400 in 100000 [1-2]. And tuberculosis is a disease caused by *Mycobacterium tuberculosis*. It is more common in young and middle-aged people. According to data published by the Ministry of Health in 2009, 69.5% of the tuberculosis cases have been reported as pulmonary [5].

Pulmonary hydatid cyst is often asymptomatic; symptoms often depend on the size and location of the cyst. Cough, chest pain, hemoptysis, and fever are the most common nonspecific symptoms. These symptoms could be seen in many lung diseases. In case of expectoration of cyst fluid or membrane, diagnosis becomes definite [6, 7]. In our case, symptoms such as cough, fever and chest pain were present. There wasn't any complaint on other organ systems. In low socioeconomic areas and in poor hygienic conditions, other disease that can be present in similar symptoms is tuberculosis [4, 8]. In this disease, nonspecific symptoms are in the foreground. It is difficult to determine unless suspected. Distinguishing hydatid cyst and tuberculosis from each other is often easy with laboratory and radiological investigations. However, distinguishing a complicated hydatid cyst from an atypical case of tuberculosis is not so easy, especially if they are in the same localization. In complete blood count of our patient, there were disorders such as neutrophil, thrombocytosis, monocytosis and leukocytosis. These findings are commonly associated with tuberculosis indeed, but it is not distinctive for diagnosis. It can be seen in a complicated hydatid cyst. In this case, radiological imaging techniques can give us better information. In our patient's radiology, on the right lung anterobasal segment uniformly bounded, thick-walled cavitory lesion with heterogeneous density in the size of ~ 4x5 cm and adjacent to it, nodular infiltrating views have been found. With these findings, we thought hydatid cyst and infection at the surrounding tissue in our case. Symptoms, laboratory studies and radiological images backed up the hydatid cyst as we never thought of the possibility of tuberculosis, we decided on surgery. When we took the patient under an operation, we encountered a complicated hydatid cyst but due to the hard nodules and ragged edges that we thought in favor of the infection around the tissue, we applied wedge resection to the area as the possibility of different pathology. After the histopathological examination of the hydatid cyst, with the occurrence of tuberculosis presence we added antituberculosis treatment to the patient. Coexistence of pulmonary tuberculosis and hydatid cyst is rarely reported in the literature [2]. Karende et al. [9] informed the coexistence of primary hydatid cyst and pulmonary tuberculosis patients in 5-year-old girl. The problem of being coexistence is the increased morbidity. As the complicated hydatid cysts may already cause inflammation of surrounding tissue, lung tissues lose their property and can easily tear while suturing. In addition, the presence of tuberculosis increases this risk even more. Prolonged air leak and expansion defects can be monitored. In a study made by Nadioo, after surgery in active tuberculosis patients, he reported in 16% of the rate of BPF (Bronchopleural fistula) development [10]. There was no postoperative morbidity in our patient.

In conclusion, the places where tuberculosis and hydatid cyst are frequently seen like in our country, in the patients with similar symptoms and tomography findings the possibility of the coexistence of pulmonary hydatid cyst has to be called to mind. If this situation is taken into consideration, a few simple tests can be done to demonstrate the presence of tuberculosis. If it is determined and if the operation isn't urgent, we think that operating the patient after two-week antituberculous treatment will reduce the risk of postoperative complications.

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