Case Report

MULTIPLE TUBERCULOUS COLD ABSCESS WITH ENDOBRONSIAL LESION: A CASE REPORT

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Abstract

Tuberculous cold abscess of the chest wall is a rare extrapulmonary localization of tuberculosis, usually described in cases of severe or disseminated form of tuberculous. We report a case of 21 years old female patient referred with intermittent cough, increasing pain and swelling on the posterior chest wall and anterior of her left schoulder who was diagnosed as multiple tuberculous cold abscess with endobronsial lesion which is very rare.

Keywords: Tuberculosis, cold abscess, endobronsial lesion

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Introduction

The incidance of tuberculosis has shown a declining trend with advances in chemotherapy and also skeletal localization is not frequent. Tuberculous cold abscess of the chest wall is rarely seen. It has been reported to compose less than %10 of the skeletal tuberculosis cases(1,2). Skeletal tuberculosis accounts for 1-5% of all tuberculous cases and 6-16 % of the extrapulmonary tuberculous cases (3,4). Diagnosis of tuberculous abscess in the chest wall is obviously difficult and also an optimal treatment plan remains contraversial.

Case Report

A 21 year old woman was admitted to our clinic with intermittent cough and increasing pain, swelling on the posterior chest wall and anterior of her left schoulder which was started two mounths ago. In the physical examination, arterial blood pressure was 110/80 mmHg, body temperature was 36,7, heart rate was 92/min. There was a swelling and erythema on the anterior of her left schoulder (80*30 mm) and on the right lumber region (20*50mm). The findings of examination were as follows; inspiratory cracles were detected in the right upper lung field. She had no tuberculosis history in her family. Chest X RAY revealed right hilar enlargement, and there was a lineer homogenous dancity between second and third ribs of right lung, homogenous dansity (2*2 cm) at the right middle lobe (Figure 1a). Computerized tomography (CT) showed pneumonic consolidation in the right upper lobe (Figure 2a) and noted soft tissue mass (4*2 cm) that cousing destruction of the Th4 vertebra placed on the paravertebral region in the posterior segments of right upper lobe (Figure 2b). Soft tissue ultrasonography (US) images shows 82*34 cm well defined abscess on the anterior of left

shoulder and 50*20 cm well defined abscess at the posterior lumber region.

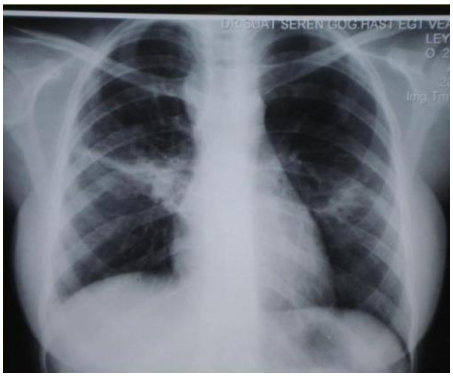

Figure 1: Chest X RAY revealed right hilar enlargement, and there was a lineer homogenous density between second and third ribs of right lung, homogenous dansity (2*2 cm) at the right middle lobe.

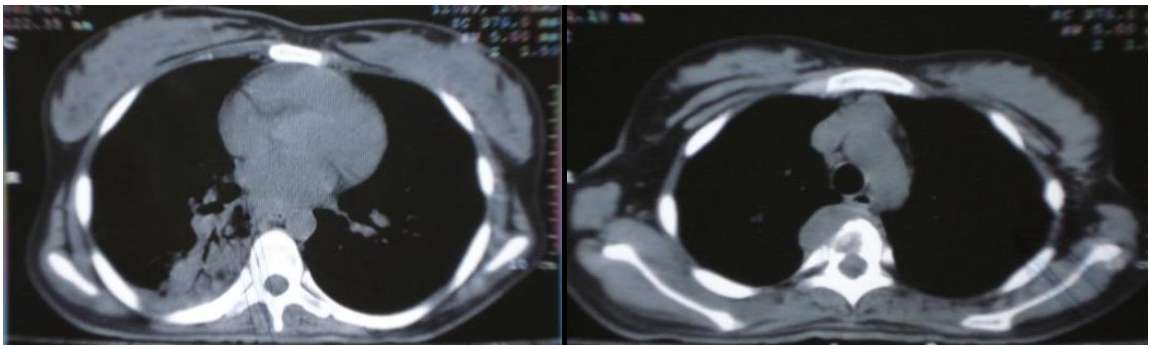

Figure 2: Computerized tomography showed pneumonic consolidation in the right upper lobe and noted soft tissue mass (4*2 cm) that cousing destruction of the Th4 vertebra placed on the paravertebral region in the posterior segments of right upper lobe

Baseline hematological and chemical findings were as follows, wbc: 14.0 K/uL, Hgb: 11.7 mg/dl, Hct: 33.7, Plt: 432 K/uL, Sedimentation rate 33 / 1 hour. The sputum smear was negative for AFB. Fiberoptic bronchoscopy was performed and an endobronchial lesion was found in the intermediate bronchus. Pathological examination of the biopsy revealed granulo matous inflammation. Simultaneously, drainage of the abscess was perfomed. Mycobacterium tuberculosis demonstrated in the culture of purulan material which was aspirated from abscess and taken from the sputum. The isolated M. tuberculosis was found to susceptible to all the tested anti-tuberculous agents. Case was assessed as a ôMultipl cold abscess with endobronsial lesion ô and treatment was initiated with isoniazid 300 mg, rifampicin 600 mg, ethambutol 1500 mg, morphozinamid 2500 mg combination. Treatment duration was planned as 12 months. Four antituberculous drugs were administered for two months, and following 10 months the treatment was planned to continue with isoniazid 300 mg and rifampicin 600 mg. Control radiographic evalution was performed after two months from treatment and revealed significant reduction in the size of the abscess and regression of pneumonic consoludation (Figure 1b). During the follow up period recurrence was not reported.

Discussion

Tubercular abscesses located in the chest wall are rare, being less than 10% of skeletal tubercular lesions (1,2,5). About 70ï 80% of the patients have a past history of tuberculosis, and 20ï 60% of the patients have active tuberculosis (2,7). Faure and colleagues reported tuberculosis abscess of chest wall. In his study, cases had history of tuberculosis in 15/18 patients (83.3%) (2).In our case, there was no tuberculosis history. Cold abscess of chest wall are generally solitary lesions but multiple lesions are possible. Bekçi et all. reported multiple pleural lesions and destruction of ribs(8). In our case, multiple cold abscess and also endobronsial lesion were observed. There are four mechanisms in the pathogenesis of tuberculosis abscess in the chest wall. First, there is pleural thickening, and visceral pleura adheres to parietal pleura by tuberculous pleural lesions. Second a chest wall abscess develops by means of localized empyema tissue from the tuberculous pleuritis and ruptures the soft tissue of the chest wall. Third, M.tuberculosis in the thoracic cavity disseminates the soft tissue of the chest wall at the time of puncture in tuberculous pleural effusion and empyema. Fourth, M.Tubercolosis infiltrates by means of blood the soft tissue of chest wall by miliary tuberculosis, and constructs abscess (9).

We thought that first and second mechanisms may be possible mechanisms related to our case. The diagnosis of tuberculosis abscess in chest wall is made by bacteriologic examination. An aspiration of the abscess has been considered to be usually non-diagnostic. The diagnosis was reported to be confirmed by AFB smear or culture in only 20% of the cases (2,5). Nokana et all. reported that positive rate of acid-fast bacilli was 35% and positive rate of culture was 60% (10). In our case, the sputum smear was negative for AFB and Mycobacterium tuberculosis demonstrated in the culture of purulan material which was aspirated from abscess and taken from the sputum.Also fiberoptic bronchoscopy was play a role for investigating differential diagnoses of mass lesions.Pathological examination of bronchoscopic biopsy revealed granulomatous inflammation. The treatment of tuberculous abscess are stil controversial. Previously, a long duration regimen of multi-drug antitubercular therapy was considered to be sufficient, and surgery was indicated if the lesion did not improve after 3 months of medication (11,12). Faure et al recommended combination of surgical and antituberculous drugs for reducing the recurrence of tuberculosis (2). Chen and coworkers successfully treated 3 patients with current antituberculous drugs, and reported no need for surgical procedures (12). The duration of antituberculous therapy has been also controversial, but a 6- to 9-month regimen including isoniazid and refampicin is considered standard (1,7). In our case, treatment duration was planned as twelve months. During the follow up period, recurrence was not reported.

In conclusion, fiberoptic bronchoscopy can be helpfull for diagnosis of tuberculosis in patients who has negative AFB smear of sputum and aspiration material.Antituberculous combination chemotherapy should be recommended as an acceptable management strategy for initial treatment. If the patient improves through medication with or without open drainage, radical surgery seems unavoidable.

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