

CASE REPORT

A Pulmonary Tuberculosis Case Presented with Tonsillar Involvement*

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Abstract

Tonsillar tuberculosis is a rare form of extra pulmonary tuberculosis. We reported a case with tonsillar tuberculosis secondary to pulmonary tuberculosis in this paper. A 26 year old, unimmunocompromised man admitted to head and neck surgery clinic with complaints of fever, throatache and difficulty swallowing. The patient was consulted by infectious diseases clinic because of examination findings and his history. Asid fast basili was determined in tonsillar lesion smear, sputum and the patient was diagnosed as tonsillar and pulmonary tuberculosis. Antituberculous agents were started. Complaints of the patient were decreased and any adverse effect was developed. Treatment was completed in 9 months. In patients with long-term difficulty swallowing and fever, countries in which tuberculosis is prevalent, tonsillar tuberculosis should be considered, even if the patients were unimmunocompromised.

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INTRODUCTION

Tuberculosis (TB) is a widely encountered infectious disease that may affect all organs and tissues. After vaccination applications and anti-TB treatments, a dramatic decrease has occurred in the incidence of the tuberculosis infection [1]. Upper respiratory tract infection is seen in approximately 2% of the cases with active tuberculosis [2]. Despite the decrease in incidence with the pasteurization of milk, it is not surprising to encounter tonsillar TB since tonsils are lymphoid tissues and they frequently come into contact with positive sputum due to localization in cases with active tuberculosis [3].

This study aimed to report a case presented with difficulty in swallowing and sore throat and diagnosed with tonsillar TB secondary to pulmonary tuberculosis.

CASE PRESENTATION

A 26-year-old male patient with no previously known illnesses had applied to head and neck surgery polyclinic with fever, sore throat, and difficulty in swallowing and speaking complaints ongoing for five weeks. On examination, both tonsils were detected hypertrophic oropharynx and white plaques were seen on the tonsils (Figure 1). The patient, whose posteroanterior chest radiography was taken, was referred to infectious diseases polyclinic due to opacity increase in the left upper zone and the presence of suspected cavitation on radiography (Figure 2).

The patient was observed to be fatigued during his first examination. The patient who looked thin was found out to have lost approximately 9 kg in one month. Patient history revealed that TB was present in his father and older brother. Upon admission, patient's temperature was 38.7°C and respiratory rate was 25/min. Extensive rale was heard in



Figure 1. Bilateral tonsils in the oropharyngeal examination of the patient.

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Figure 2. Cavitary lesions in the posteroanterior chest radiography of the patient.

both lungs. Lymphadenopathy, approximately 1 x 1.5 cm and 1 x 2 in size, was detected on both anterior cervical chains. Throat culture was taken for microbial examination. When patient history was probed into, it was found out that the patient had applied to an infectious diseases polyclinic with the same complaints there weeks prior and oral antibiotics were prescribed with a diagnosis of bacterial tonsillitis but no culture was taken.

Laboratory results upon admission were as follows: white blood cell count 4200/mm³, hemoglobin 8.9 mg/dL, hematocrit % 37.5, erythrocyte sedimentation rate 45 mm/sa, C-reactive protein 2.5 mg/dL, serum alanine aminotransferase 41 IU/L, and serum aspartate aminotransferase 38 IU/L. Human immunodeficiency virus (HIV) of the patient was detected negative with enzyme linked immunosorbent assay (ELISA).

In the smear of the plaques and sputum of the patient, acid-resistant bacilli (ARB) were detected positive (Figure 3).

The patient was started on anti-tuberculosis treatment (300 mg/day isoniazide, 600 mg/day rifampicin, 1200 mg/day ethambutol, 1500 mg/day streptomycin) with a diagnosis of tonsillar tuberculosis secondary to pulmonary tuberculosis. No side effects related to treatment developed. In the meantime, microbacteria growth was established in the sputum culture. Examination findings of the patient regressed in the first month of the treatment and the plaques on the tonsils disappeared. The treatment of the patient was completed in nine months. The patient gave consent to the presentation of this case that was diagnosed late.

DISCUSSION

Extrapulmonary localization of tuberculosis is seen very rarely and tonsillar lesions are even rarer [1,4]. Upper respiratory tract is protected thanks to the inhibitor effect of the sputum

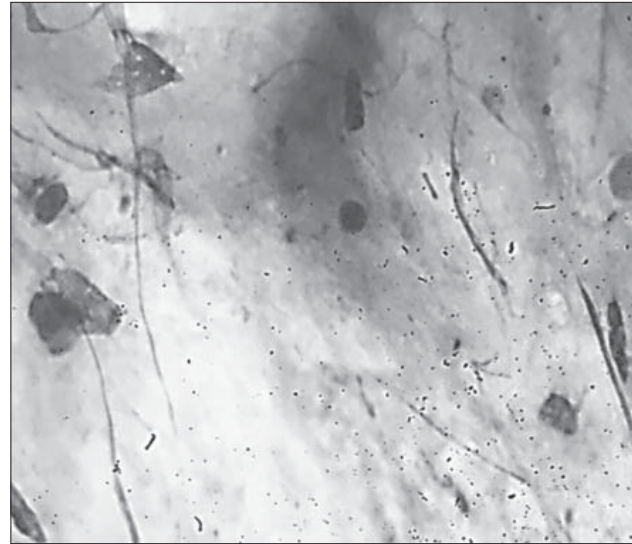


Figure 3. Acid-resistant bacilli in the sputum sample.

on TB bacillus. The presence of saprophytes, the fact that striated muscles antagonize bacterial invasion and the protective epithelium of the oropharyngeal mucosa create an inhibitor effect on bacillus [1,5]. However, oral TB may develop as a result of drinking contaminated milk and the agent is frequently *M. bovis*. Oral TB in adults develops secondary to pulmonary TB [6]. It is our belief that since our patient had ARB (+) pulmonary tuberculosis, the reason was positive sputum exposure.

Extrapulmonary tuberculosis can be seen as a result of decreased host response related to chronic alcoholism, long-term steroid use, chronic obstructive pulmonary disease (COPD), diabetes, chronic renal failure, pregnancy, and HIV infection [7,8]. Patient history did not include any use of immunosuppressant agents and when the patient was evaluated for HIV, anti-HIV negativity was established. However, TB history was present in the patient's family.

Oral tuberculosis lesions can be seen in forms of ulcer, nodule and plaque [9]. The most frequently encountered form of tonsil TB is the ulcer form and the patient had bilateral white plaques. Due to the similarity of the symptoms and abnormal tonsil findings, tonsil TB shows resemblance to malignant tumors and differentiation of the two can be difficult. Traumatic ulcerations, actinomyces, syphilitic ulcers and Wegener granulomatosis are other diseases that should be considered in differential diagnosis [4,5].

Radiological evaluation of the lungs, serologic tests, bacterial and fungal cultures and direct ARB evaluation of the lesion and the sputum are adjuvant methods in diagnosis. Dental practitioners and head and neck surgery specialists should be attentive to oral TB in patients who are in close contact with people with low socio-economic level, history of smoking and who are known to have TB, especially in countries where TB prevalence is high. In the present case study, the patient was referred to infectious diseases polyclinic with a preliminary diagnosis of tonsil TB after having applied to the head and neck surgery polyclinic.

In conclusion, TB is a serious and life-threatening disease, which should be kept in mind in differential diagnosis in the presence of an infectious case in countries where TB is endemic. In the presence of bilateral but non-proportional tonsil hypertrophy accompanied by cervical lymphadenopathy, TB should be considered in differential diagnosis even if the patient's immune system is strong.

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