Laryngeal tuberculosis without pulmonary involvement

Abstract

Background: Tuberculosis of the larynx is a rare form of tuberculosis. Patients usually present with hoarseness or dysphagia and other nonspecific constitutional symptoms like fever or localized pain. In this study, we present a case of primary vocal cord lesion with tuberculosis.

Case presentation: A 72 year old man presented with hoarseness of voice, low grade fever, and night sweating within three months duration. Laryngoscopscopic study showed unilateral thickening of vocal cord and biopsy of the lesion showed granuloma with caseous necrosis. Chest x-ray was normal. The patient was treated with standard regimen of tuberculosis and was cured after 6 months of therapy.

Conclusion: Laryngeal tuberculosis should be considered in the differential diagnosis of patients with hoarseness without pulmonary involvement in endemic regions of tuberculosis.

Key words: Tuberculosis, Primary, Vocal cord, Hoarseness.
In general physical examination, he was conscious. There was no cervical lymphadenopathy or clubbing. There were no scars or sinuses in the neck. Indirect laryngoscopy had shown a growth in the right ary-epiglottic fold (figure 1). Vocal cords were moving with no signs of infiltration. The respiratory system examination and chest x-ray were normal. PPD test showed 15 mm indurations after 48 hours. After a standard evaluation, the patient underwent laryngoscopy under local anesthesia and biopsy was taken from epiglottis.

A standard six month treatment with a combination of isoniazid, rifampicin, pyrazinamide, and ethambutol was started for two months followed by isoniazid and rifampicin for additional four months. The follow up after treatment showed resolution of the symptoms and improvement of the mass (figure 3).

Discussion

Primary tuberculosis of larynx is rare. The accepted route of infection is direct invasion by inhaled tubercle bacilli. In this study, we present a case of vocal cord involvement due to mycobacterium tuberculosis without having any lesion in his lungs. Laryngeal tuberculosis is the most common granulomatous disease of the larynx and has usually been considered to result from pulmonary tuberculosis, although it might be localized in the larynx as a primary lesion without pulmonary involvement (6). The pathogenesis of laryngeal involvement is either primary or secondary (7, 8). Primary lesions occur in the absence of pulmonary disease. In the present case, the laryngeal involvement was probably a primary lesion due to contact with his wife who had pulmonary tuberculosis before. Early descriptions of laryngeal tuberculosis identified the posterior part of larynx as the part most frequently affected (9). In larynx, the commonest parts involved are the vocal cords and the least affected is the epiglottis (10). Laryngeal tuberculosis may be categorized to ulcerative lesions, nonspecific inflammatory lesions, polypoid lesions and ulcerofungative mass lesions (3, 11).

In the present case, ulcerofungative mass lesion was present on the epiglottis. The patient responded to antituberculosis therapy by showing improvement in hoarseness of voice within three months. This case is a
warning that a growth-like lesion in the upper respiratory tract could be tuberculosis in origin and, therefore, efforts should be made to locate an active or inactive lesion elsewhere in the body. Since there was no evidence of the disease in any other organ or system as evidenced by clinical, radiological examinations, the diagnosis of primary laryngeal tuberculosis was considered likely in our patient. Primary laryngeal tuberculosis was rarely reported in the medical literature (12-15). In conclusion, in endemic regions of tuberculosis any patient with hoarseness, tuberculosis should be considered in the differential diagnosis.

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References