

Laryngeal Manifestations of Tuberculosis: A Case Report

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Abstract

Incidence of laryngeal tuberculosis as an extrapulmonary site is not common. It can be due to primary or secondary lesions of TB. Vocal cord paralysis can be due to involvement of vagus anywhere along its course. Here we have reported a case of patient presented to emergency with hoarseness and dysphagia found to have vocal cord paralysis as a manifestation of miliary tuberculosis.

Keywords: Vocal cord paralysis; TB-tuberculosis; Larynx

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Introduction

Tuberculosis has various clinical manifestations affecting different organs differently. Laryngeal involvement mainly due to pulmonary TB or primary lesion in the larynx. The reason behind laryngeal paralysis or involvement:

- (1) TB lymph nodes compressing the recurrent laryngeal nerve.
- (2) Entrapment of recurrent laryngeal nerve in mediastinal fibrosis.
- (3) Stretching of nerve due to retraction of upper lobe bronchus in primary pulmonary TB.

Intrathoracic disease mainly affects the left recurrent laryngeal nerve due to its long Intrathoracic course as it hooks around aorta. The right recurrent laryngeal nerve hooks around subclavian artery and may be affected in apical pleural fibrosis or by supraclavicular lymph nodes or rarely mediastinal nodes.

Tubercular lymphadenopathy is the most common form of extrapulmonary TB of which hilar and mediastinal nodes are most commonly involved.

Case Report

A 45-year-old male patient came to emergency with complains of fever for 2 months, anorexia, weight loss, hoarseness, dysphasia and generalized weakness. He was a known case of hypertension and diabetes, on regular treatment. Patient told us that he had fever low grade documented 99-100 F, not associated with chills during fever spikes mainly in evening hours. His fever goes away on taking antipyretics without any aggravating factor.

He has developed symptom of hoarseness and dysphasia since 1 month which was mild in symptoms in earlier phase and progressive with time. Also complaining of generalized weakness;

anorexia and weight loss around 8 kg in 2 months duration.

Patient was worked up in many private clinics for the above-said reasons; however, he was not relieved of symptoms.

His vital parameter shows PULSE-80/min, BP-110/80, SpO₂-97% TEMP-99 Random blood sugar -150, RR-15/min.

Laboratory reports:

Hb-14

TLC-9200

DLC-25/65/5/2

Plt-1.8L

Urea-30

Cr-1.1

Na-134

K-3.9

LFT-WNL

ESR-80

Video laryngoscopy shows edematous left true and false vocal cords with loss of vibration, incomplete glottis closure during phonation. Patient was admitted and investigated, diagnosed as Pulmonary tuberculosis with laryngeal manifestation. He was put on Anti-tubercular treatment and subsequently his symptoms improved during the course of treatment.



Fig. 1: CXR – Miliary shadows s/o miliary tuberculosis

Discussion

The most common site for development of laryngeal TB is inter-arytenoid region, posterior surface of the true vocal cord and laryngeal surface of epiglottis. During phonation subglottal pressure increases against the closed glottis, vocal cords are blown apart and glottis opens. After maximal opening pressure drops and glottis closed. This movement creates vibratory circles essential for phonation. Laryngeal TB interferes with this mechanism leading to disturbances in speech. Vocal cord paralysis was the most common manifestation (66.6%). Tuberculosis of the larynx can be secondary to pulmonary tuberculosis or a primary manifestation. Vocal cord paralysis on the left side was due to mediastinal lesions and on the right side was due to apical fibrosis.

Conclusion

There is a decrease in the incidence of TB after effective use of anti TB chemotherapy. Patient's on immunosuppressive therapy or steroids may

change the disease course and response to treatment. Vocal cord lesions due to active tuberculosis either nodal or parenchymal involvement usually recover completely with treatment. On the other hand, the lesions due to inactive lesions are likely to be permanent.

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