

CASE REPORT

A rare case of laryngeal tuberculosis simulating malignancy

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INTRODUCTION

The laryngeal tuberculosis occurrence has been greatly decreased as a result of improvement in public healthcare and development of effective anti-tuberculosis chemotherapy. Tuberculosis of the larynx is commonly secondary to a tuberculous lesion elsewhere in the body or rarely a primary affection from inhaled tubercle bacilli directly. The extra-pulmonary involvement of tuberculosis ranges from 30% to 40%.^[2] Recently, on attempting to rule out carcinoma, tuberculosis of larynx has been diagnosed by clinicians.^[3] This case report discusses a proliferative growth in the epiglottis, clinically mimicking a malignancy.

CASE REPORT

A 60-year-old male, farmer by occupation presented with a 2 years history of productive cough that increased in 2-months,

Laryngeal tuberculosis accounts for <1% among patients of tuberculosis and is most often associated with primal lung infection^[1] In many cases, it is laryngoscopy features mimic malignancy. We illustrate the difficulty of recognizing laryngeal tuberculosis both clinically and radiologically in a 60-year-old man who presented with the clinical picture of laryngeal mass which turned out to be tuberculosis on histopathology.

KEY WORDS: Culture, antitubercular therapy, tuberculosis

shortness of breath since 2 months, hoarseness of voice and difficulty in swallowing since 15 days. There was no history of fever, chest pain, stridor, or any contact with a case of tuberculosis.

Difficulty in swallowing, hoarseness and chronic cough are the main symptoms in patients suspicious of laryngeal carcinoma. The patient was a chronic smoker (28 pack-years) with no alcohol and drug abuse. Patient had a history of tuberculosis 2 years back on sputum basis for which he took ATT for 6 months and got cured.

On general physical examination, patient was conscious, thin built and non-febrile. There was no cervical lymphadenopathy or clubbing. There were no scar marks or sinuses in the neck. Indirect laryngoscopy showed a greyish tumor in the left supraglottic region. Vocal folds were moving with no signs of infiltration.

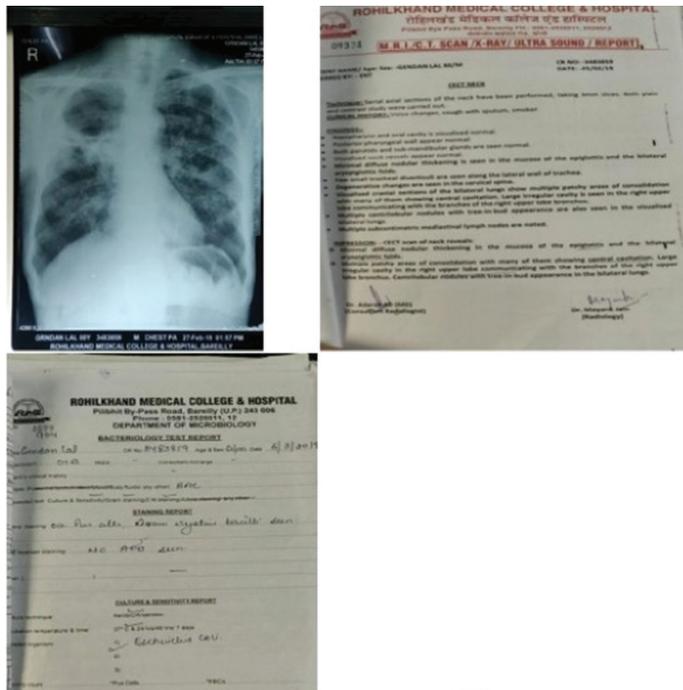
Examination of respiratory system showed bilateral coarse crepts in suprascapular region. Rest of the systems were within normal limits.

A plain chest radiograph (CXR) and computed tomography (CT) scans of the neck and thorax were performed. The CXR showed bilateral reticulonodular infiltrative lesions in the upper zones.

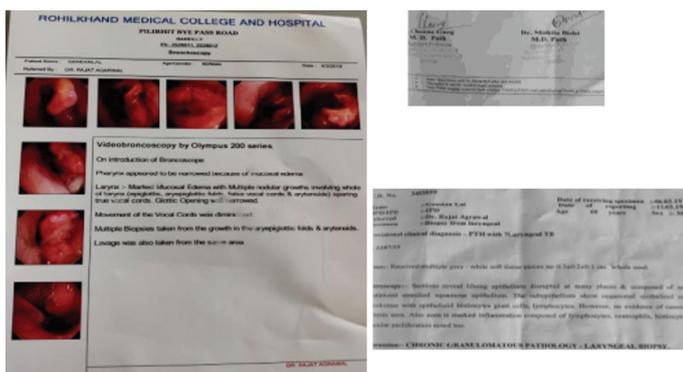
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Contrast-enhanced CT scan of the neck was performed on which revealed thickening and enhancement of the epiglottis and both aryepiglottic folds, the pyriform fossae, and both vocal cords, including the anterior commissure. There was a predominant anterior pattern of involvement, against a diffuse background of multiple, focal, low-attenuation areas, and obliteration of the para laryngeal fat planes. Multiple sub centimetric lymph nodes were also noted. CT scan of the chest confirmed the CXR findings and showed large irregular cavity in the right upper lobe. Sputum examination was negative for acid-fast bacillus (AFB) and was proceeded with cartridge-based nucleic acid amplification test and AFB C/S.



Direct laryngoscopy was done and biopsy was taken from epiglottis and inter arytenoid region. The specimen was sent for histopathological examination. Based on these findings, laryngeal and pulmonary reactivation TB diagnosis was made and the patient was started on standard anti-tuberculosis treatment of four drugs. Initially, he responded well to the treatment, and by 3 weeks he was symptom free. Laryngoscopy showed resolution of the inflammatory changes in supraglottic region and he was discharged with instructions to complete the anti-tubercular treatment. The patient remained stable on routine follow-up visits for 1 year.



DISCUSSION

Upper respiratory tract tuberculosis is an uncommon entity with incidence of laryngeal tuberculosis <1% of all cases of tuberculosis.^[5] Rohwedder founded only 11 laryngeal cases (1.3%) in 843 tuberculosis patients.^[7] The pathogenesis can be primary or secondary of laryngeal involvement.^[5] In the present case, the pathology was probably secondary to pulmonary infection.

Laryngeal tuberculosis has predominant occurrence in individuals of 40–60 years with gender ratio 2:1–3:1.^[8]

Tuberculosis that is isolated to head and neck region is commonly seen in patients with HIV infection and therefore should be kept as differential diagnosis of all the lesions of head and neck even in the absence of lung involvement. Alonso *et al.* reported 11 cases with the dominant symptom as dysphonia in 82% cases, either alone or accompanied by odynophagia or dyspnea.^[11]

In the present case, hoarseness of voice was the main symptom. The main symptoms are difficulty in swallowing, hoarseness, and chronic cough in suspected patients of laryngeal carcinoma. For establishing a definitive diagnosis, biopsy and direct laryngoscopy are mandatory.^[9] Epithelioid granuloma with Langerhans type giant cell, granulomatous inflammation, and caseating granuloma formation are characteristic features of this type of tuberculosis.^[2] Tuberculosis and malignancy both can coexist in the same patient.^[5] Therefore, as in our case, the diagnostic challenge is to exclude the laryngeal cancer first. The anti-tubercular therapy generally cures the disease without any sequel and gives good prognosis. As in our case, most lesions disappear over a 2-month period.

The disease has been changing its behavior in many ways and nowadays, clinicians differential diagnosis of the both upper and lower respiratory tract pathologies should have a tuberculous lesion. Worldwide, the incidence of tuberculosis has been increasing. Therefore, tuberculosis of the larynx must be suspected in patients presenting with dysphagia and odynophagia that mimics a laryngeal carcinoma.

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