

Laryngeal Tuberculosis Mimicking A Laryngeal Carcinoma:- A Case Report & Review of Literature

Khemchandra Borole *

ABSTRACT:

INTRODUCTION: Occurrence of laryngeal tuberculosis has greatly decreased as a result of effective antitubercular drugs & improved public health care. As the pattern of presentation has changed over the years, nowadays tuberculosis of larynx have been diagnosed while ruling out the carcinoma. **CASE:-** This is a case report of a 40 year old male, presented with clinical picture of laryngeal carcinoma, but which turned out to be tuberculosis. This effort is to illustrate the difficulty of recognising laryngeal tuberculosis both clinically & even with radiologically. **CONCLUSION:-** Although uncommon, laryngeal tuberculosis should be considered as a differential diagnosis particularly in cases of suspected laryngeal carcinoma.

INTRODUCTION

Laryngeal TB used to be a common complication of pulmonary TB. In early 20th century it had affected 25-30% of all infected patients. But nowadays it occurs in less than 1% of cases {1,2,3}. With use of antitubercular drugs its occurrence became rare & clinical presentation has changed over the years. As it is usually seen in male patients who smoke, accompanied by hoarseness & a laryngeal mass, it may be confused with laryngeal malignancies.

CASE REPORT

A 40 year old male came to our emergency department with acute onset of stridor & breathlessness for which emergency tracheostomy was performed. He had history of cough with scanty mucoid expectoration, hoarseness of voice and loss of weight since 1 month. There was no history of chest pain, prior dyspnea or contact with a case of tuberculosis. His prior medical history was unremarkable. Since 15 years he was tobacco smoker but nonalcoholic. On examination he was conscious, afebrile, well nourished, no clubbing, sinuses, lymphadenopathy. Indirect laryngoscopy revealed edematous epiglottis, ulceroproliferative mass appearing to be arising from subglottic area with edematous & less mobile vocal cords. Respiratory system examination revealed bilateral coarse crepts in suprascapular area. Rest systems were normal. With

these findings laryngeal malignancy was suspected but further investigations showed that it was a chronic granulomatous disease. His ESR was 80 mm/hr. Patchy opacities in both apices were presents in chest radiograph. CT neck showed subglottic mass lesion obliterating the airway of trachea mostly a neoplastic pathology or aggressive infective pathology like tuberculosis {Fig A & B}. CT chest was suggestive of pulmonary tuberculosis {Fig C & D}. Tuberculin test was positive with 22 mm induration. Sputum smear was positive for acid fast bacilli. Histopathological examination of the mass showed chronic granulomatous inflammation with giant cells and necrotic areas without signs of malignancy. On the above basis diagnosis of pulmonary tuberculosis with secondary laryngeal tuberculosis was established.

DISCUSSION

Extrapulmonary tuberculosis in the head & neck occurs mostly in the cervical lymph nodes (>90%), followed by the larynx (2-6%). Rarely involved sites are temporal bone, sinonasal cavity, eye, pharynx, thyroid & skull base {1,2,4}. Laryngeal tuberculosis is either primary or secondary. Primary lesions occur in the absence of pulmonary disease. In secondary type, larynx becomes infected by a direct spread from the lungs which is most common & relevant for the patient in our case or by a hematogenous spread from the sites other than the lungs. {5,6,7} The characteristics of laryngeal tuberculosis have been changed over the years & it has become challenge to distinguish it from other diseases. Previously laryngeal TB was found in young people in

Address for correspondence

*Associate Professor, Dept of Medicine,
Dr Ulhas Patil Medical College & Hospital,
Jalgaon Kh, Jalgaon

the 2nd or 3rd decade of life with advanced pulmonary TB. Presenting symptoms were cough, hemoptysis, fever, weight loss & night sweats. Today, laryngeal TB involves people in their 50's & 60's presenting first & foremost with hoarseness (80%-100%). Other symptoms are odynophagia (50%-67%) & to a lesser extent dysphagia, dyspnea, stridor, cough and hemoptysis. Systemic symptoms have become rare & there is no longer an unmistakable association with pulmonary TB {1,4,6,8,9}. In physical examination, the laryngeal TB most frequently involves true vocal cords followed by epiglottis, false vocal cords & ventricles, arytenoids, posterior commissure and the subglottic area {1,7,9}. Aside from chronic laryngitis & laryngeal carcinoma, the differential diagnosis includes syphilis, sarcoidosis, Wegener's granulomatosis, cat-scratch disease & fungal infections {2}. Gross findings of laryngeal TB can be categorised into 4 groups- whitish ulcerative lesions (40.9%), nonspecific inflammatory lesions (27.3%), polypoid lesions (22.7%) & ulcerofungative mass lesions (9.1%) {9}. In our case ulcerofungative mass lesion was present in subglottic area. ESR may be elevated but it is not specific for the diagnosis of laryngeal TB. Tuberculin skin test is usually positive in tuberculosis but a negative result can not rule out the disease. CT of the neck can not definitively identify laryngeal TB since, as in a chest x-

ray, it can imitate many other diseases. Confirmation of the diagnosis of laryngeal tuberculosis can be made with 1) histopathological evidence of epithelioid cell granuloma, 2) demonstration of AFB on biopsy specimen & 3) growth of M. Tuberculosis from biopsy specimen. But smear for acid fast bacilli can be unreliable & are negative in upto 50% of cases. Culture of mycobacteria is time consuming, requiring 5-6 weeks for the results & its positive in 50%-70% of cases {10,11}. So the diagnosis is mostly made by combination of clinical picture, histologic appearance & the response to drugs. Treatment of laryngeal tuberculosis includes the antitubercular drugs including INH, Rifampin, ethambutol & pyrazinamide. The response to antitubercular drugs is excellent. If not treated early, sequelae can occur, as (sub)glottic stenosis, muscular involvement & vocal cord paralysis when the cricoarytenoid joint or recurrent laryngeal nerve are involved {5,7}.

CONCLUSION

Tuberculosis must be considered in the differential diagnosis for patients with laryngeal masses. It can easily be confused with malignancy. There are no pathognomonic features indicative of this disease. The histopathologic investigation is the definitive test in the differential diagnosis with carcinoma and laryngeal tuberculosis.



Fig a

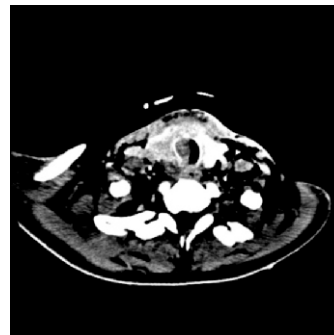


Fig b



Fig c



Fig d

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