

Original Article

INCIDENCE OF TB LARYNGITIS IN PULMONARY TUBERCULOSIS PATIENTS IN A TERTIARY HOSPITAL - KHAMMAM

Dr.Siva Subba Rao Pakanati , Dr.G.Divya Vani ,Dr. G.Pradeep

Dept of ENT , Mamata Medical College, Khammam , Telangana State.

Corresponding Author: .Dr.Siva Subba Rao Pakanati

ABSTRACT:

OBJECTIVE: The aim of this study is to highlight the incidence and changing clinical patterns of laryngeal tuberculosis and its relation with pulmonary tuberculosis in the largest tertiary hospital in Khammam.

MATERIALS AND METHODS: This prospective study was conducted on 50 patients suffering from pulmonary tuberculosis and hoarseness of voice. Each patient was subjected to detailed history, ENT, and head and neck examination including laryngeal examination by using indirect laryngoscopy, video laryngoscopy.

RESULTS: Laryngeal tuberculosis clinically diagnosed by video laryngoscopy and confirmed by biopsy. The incidence was 2% among the 50 selected patients.

CONCLUSION:Laryngeal Tuberculosis, though rare, the clinician should be vigilant and should always consider the laryngeal TB in patients suffering from change in voice more than 15 days, especially in case of primary pulmonary tuberculosis.

KEY WORDS: Laryngeal Tuberculosis, Hoarseness of Voice, Primary Pulmonary Tuberculosis

INTRODUCTION:

Laryngeal Tuberculosis is almost secondary to pulmonary Tuberculosis. Laryngeal Tuberculosis is a rare form of extra pulmonary tuberculosis. Due to the increase in number of immunocompromised hosts and development of multidrug resistant cases of TB, today ENT specialists are seeing increasing number of laryngeal TB cases. The classic presentation of the past no longer holds true today and a changing trend in its pattern of presentation is observed. This article highlights the changing trend in the presentation of laryngeal TB and the importance of suspicion towards laryngeal TB in patients suffering from pulmonary TB and hoarseness of voice.

MATERIALS AND METHODS

This prospective study has been conducted in the Dept of ENT, Mamata Medical College, Khammam with a good coordination with Dept of Respiratory Medicine, during a period of one and half year from July 2015 to December 2016. A total of 50 cases were referred from Dept of Respiratory Medicine, suffering from pulmonary tuberculosis to Dept of ENT for review, as they were found with hoarseness of voice. All the patients were subjected to detailed history and thorough ENT and head and neck examination, including laryngeal examination by visualization of vocal cords, possibly using indirect laryngoscopy or video laryngoscopy. Only one patient found with laryngeal lesions and underwent biopsy with rigid laryngoscopy and specimen was sent for histopathological examination.

RESULTS:

The age incidence of change in voice in pulmonary TB patients ranges from 20-60 years. The highest incidence was observed between 20-40 years age group.

Table 1: Age distribution of patients [n=50]

(Years) Age	No. of Patients	% of Patients
0-20	0	0%
20-40	32	64%
40-50	14	28%
50-60	4	8%

The male to female ratio was 9:1. The majority of patients were from rural background and the rural to urban ratio was 9:1. The patients were from different occupations but majority were daily labourer.

Table 2: The occupation of the patients [n=50]

Occupation	No. of Patients	% of Patients
Labourer	22	44%
Farmer	17	34%
Housewife	5	10%
Shopkeeper	6	12%

The duration of change in voice was less than one month in almost all the cases. All these patients had a history of overcrowding of houses and contact with patients suffering from TB. Among the 50 patients only one male patient, 35 years was observed with laryngeal lesions. on indirect laryngoscopy, the epiglottis was so much congested and edematous, the other parts of larynx could not be visualized. on video laryngoscopy Small multiple ulcers were found over the arytenoids, inter arytenoid region and true vocal cards. Movement of the vocal cards and arytenoids appeared to be normal. Direct laryngoscopy was done under short general anesthesia and biopsy was taken from interarytenoid region and the specimen was sent for histopathological examination. The histopathological examination revealed, tubercles consisting of a homogenous caseous center, a periphery of

pale epitheloid cells containing one or more Langhans giant cells and an outer zone of lymphocytes. So the incidence of TB laryngitis among the 50 patients with pulmonary TB and hoarseness of voice was 2%.

DISCUSSION:

During the last 10 years, mortality from Tuberculosis has decreased by 43% in India¹. Now the disease is changing its manifestation with increase in the incidence of extra pulmonary cases. Laryngeal TB is very rare, it accounts for less than 1% of all tuberculosis cases.^{2,3} It is the most common granulomatous diseases of larynx.⁴ The possible routs of invasion are either direct contact of sputum containing tubercle bacilli or blood and lymph born bacilli deposited locally.⁵ In case of laryngeal TB, the most common symptom is hoarseness⁶, in our study also all the sputum positive cases with hoarseness of voice were

referred to ENT OPD, which emphasizes the importance of change in voice to suspect TB laryngitis. Incidence of TB laryngitis in children is very very rare, the fact is that only 6 cases were reported worldwide during 1960-1995.⁷ In this study also not a single pediatric case of suspected TB laryngitis was referred to ENT OPD.

Laryngeal TB is usually seen in the third to fourth decade in males.⁸ In this study also laryngeal TB was observed in a 34 years male patient. According to Farooq A. et al⁹ Laryngeal TB is almost always secondary to pulmonary tuberculosis. In this study all the referred patients from the Dept of Respiratory Medicine were sputum positive cases. Not even a single primary TB laryngitis was observed in Dept of ENT during this study period. Patients with laryngeal TB respond well to anti tubercular treatment. A six months course is sufficient and gives

remarkable results¹⁰. There is an increased risk of laryngeal TB in patients with HIV, but none of our patients of pulmonary tuberculosis had HIV infection¹¹. In this study the incidence of TB laryngitis was high - 2%, and is comparable to study by Kliensasser O, where it was 2%¹². This high incidence might be due to high incidence of pulmonary tuberculosis in India.

CONCLUSION:

Laryngeal tuberculosis, though rare is increasingly presenting to the otolaryngologists due to increase in the number of immuno-compromised hosts and development of resistant micro organisms.

So the clinician should be vigilant and should always consider the laryngeal TB in patients suffering from change in voice for more than 15 days especially in cases of primary pulmonary tuberculosis.

REFERENCES:

1. Central TB Division, Ministry of Health & Welfare, Govt. of India, TB India 2010, RNTCP status report.
2. Uslu C, Oysu C, Uklumen B. Tuberculosis of the epiglottis: a case report. *Eur Arch otorinolaryngol* 2008 May; 265(5): 599 - 601.
3. Williams RG, Douglas – Jones T. Mycobacterium marches back. *J laryngol otol* 1995 Jan; 109(1), 5-13.
4. Caldarelli DD, Freidberg SA, Haris AA. Medical and surgical aspects of the granulomatous diseases of the larynx. *Otolaryngol clin North America*, 1979 Nov; 12 (4) : 767-781.
5. Brown W.G.S, Ballantyne J, Grovet J. *Diseases of the Ear, Nose and Throat*. 2nd Edition, Volume I, 1965, 539, Butterworth and Co. Ltd, London.
6. Shin JE, Nam Sy, YooSJ, Kim Sy. changing trends in clinical manifestations of laryngeal tuberculosis. *Laryngoscope* 2000 Nov; 110(11) : 1950 – 1953.
7. Ramadan HH, Wax M. Laryngeal tuberculosis. A cause of strider in children. *Arch otolaryngol Head Neck surg* 1995; 121(1) : 109-1.
8. Parik Nimish P (1991) etiological study of 100 cases of hoarseness of voice. *Indian Journal of Otolaryngolog* 43:71-73.
9. Farooq A (1994) The Larynx in pulmonary kocks. *Indian Medical Gazette* 361-362.
10. Sharma SK, Mohan A. Extrapulmonary tuberculosis. *Indian J Med Res* 2004 Oct 120(4): 316 – 353.
11. Singh B, Balwally AN, Nash M, Har – EIG, Lucente FE. Laryngeal Tuberculosis in HIV infected patients : a difficult diagnosis. *Laryngoscope* 1996 Oct; 106(10) : 1238 – 1240.
12. Klein Sasser O (1982) pathogenesis of vocal cord polyps *annals of otorhinolaryngol* 91:378-381.