

CAUSES OF HOARSENESS IN NORTH OF PAKISTAN

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ABSTRACT

Objectives: To determine the etiology of hoarseness, a careful directed approach for its diagnosis and early management.

Material and Methods: This descriptive study was carried out at the department of ENT Khyber Teaching Hospital, Peshawar, Pakistan from January 2008 to December 2009. A total of 100 patients presenting for the first time with hoarseness were included in the study.

Results: Infection (42%) was the commonest cause of hoarseness in our study followed by benign lesions (25%) and malignant lesions (13%). Five percent of the cases of hoarseness were due to vocal cord paralysis. In 12% of cases hoarseness was found to be of non organic type. Three percent of cases were due to trauma.

Conclusion: Hoarseness of voice is just a symptom and not a diagnosis and every case should be carefully and thoroughly investigated for the underlying cause.

Key Words: Hoarseness, Etiology, Acute laryngitis, Laryngeal growth, Vocal cord paralysis, Function.

INTRODUCTION

The human voice is an extraordinary attainment, which is capable of conveying not only complex thought but also subtle emotion. At every child birth the most singularly and universally awaited sign of life is the infants cry.¹ The cry signal's a full filled physiological capability required for the infants survival. Probably no other human organ system need work so immediately and effectively after birth. Although the voice is not visible to eyes during speech production but its absence or malfunction is obvious.² Hoarseness is the term used to describe a change in normal voice quality. Complaints of hoarseness may represent serious disease, therefore it should not be ignored.³ In the words of chevalier Jackson "Hoarseness is a symptom of utmost significance and calls for a separate consideration as a subject because of the frequency of its occurrence as a distant signal of malignancy and other conditions. Assessing an etiology is not always easy to accomplish and the process of differential diagnosis starts a new with each patient.⁴ The challenge for the otolaryngologist is to track down all the pieces of data essential for making a correct diagnosis by comprehensive history taking, examination and cost effective investigations. Because of the diversity of etiology of hoarseness, the etiological data varies from country to country and centre to center. Therefore this study was conducted

to determine the etiological distribution of the causes of hoarseness in our set up.

MATERIAL AND METHODS

This descriptive study was conducted at the department of ENT Khyber Teaching Hospital, Peshawar Pakistan from January 2008 to December 2009. A total of 100 patients were included in the study. Patients presenting to us for the first time with hoarseness were randomly included in the study. The patients were of both sexes. Patients under 12 and over 65 years of age, under treatment of speech therapist were excluded from the study. In every case a detailed and careful history was taken with special emphasis an the onset, progression, duration, aggravating and relieving factors. Any relationship with occupation, habits or associated symptoms like cough, dyspnoea, fever, trauma, postnasal drip or acid reflux were also taken into account.

A detailed ENT and systemic examination was carried out in every case. Investigations like X-ray soft tissue of the neck, direct laryngoscopy, and biopsy were carried out. CT scan and MRI further helped in arriving at an accurate diagnosis in a few patients when required. The underlying cause was reached in most of the cases. Etiologies at the end were grouped under the headings of infection, growth both benign and malignant, vocal cord paralysis, trauma and functional causes.

RESULTS

Out of 100 patients 65 (65%) were males and 35 (35%) were females. Acute infection was the

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commonest cause in younger age group, voice abuse in adults and growths in elderly. 24 (24%) of the patients belonged to 12-30 years of age, 58 (58%) were from 30-50 years, and 18 (18%) patients were for 50-65 years of age. It was noted that 75 (75%) of our patients belonged to low socioeconomic background. 19 (19%) were from middle class and 6 (6%) belonged to upper class. Voice abuse and smoking were found to be the commonest habits related to hoarseness. The etiologies are shown in Table 1.

Table 1: Etiology of Hoarseness of Voice (n=100)

S. No.	Causes	No. of patients & percentage
1.	Acute laryngitis	25 (25%)
2.	Chronic laryngitis	17 (17%)
3.	Vocal cord nodules	15 (15%)
4.	Vocal cord polyp	5 (5%)
5.	Vocal cord cysts	3 (3%)
6.	Vocal cord papilloma	2 (2%)
7.	Squamous cell carcinoma	13 (13%)
8.	Vocal cord paralysis	5 (5%)
9.	Functional causes	12 (12%)
10.	Trauma	3 (3%)

DISCUSSION

Hoarseness has many causes, ranging from a simple upper respiratory tract infection to a serious pathology such as a squamous cell carcinoma. If hoarseness persists for more than six weeks and does not respond to conventional treatment patient must be investigated and under general anesthesia larynx must be examined.⁵

In this study infections were found to be the most common cause of hoarseness. Acute laryngitis, mostly affecting the younger age group was slightly more common than chronic laryngitis affecting the older age group. Acute laryngitis in most of the cases was found to be infectious in origin, either viral or bacterial and in a few cases due to exposure to excessive smoke and dust.⁶ Hot and cold climate, congested houses, diminished resistance due to undue physical or psychological stress were found to be closely associated predisposing factors with acute laryngitis in our study, these factors were least found in a study by Brock PV et al.⁷ Chronic laryngitis in our series were found to be exclusively of non specific type. Tuberculosis though rare in the West is very common in our part of the world. It may involve larynx and cause hoarseness.⁶ In our study heavy smoking, habitual

voice abuse and chronic upper or lower respiratory tract infection were found to be associated with chronic laryngitis as compared to other studies also.^{7,8} A similar study conducted by Herrington et al⁹ in which majority of the patients were found to have acute or chronic infection as a primary cause of hoarseness followed by tumor and tumor like conditions, and the same was found to be true with our study. Recurrent laryngeal papillomatosis was not encountered probably because of the exclusion of younger patients.

A study carried out by Micheal H. et al¹¹ hoarse patients contemplated vocal nodules secondary to voice abuse as the commonest pathology causing hoarseness of voice. In our study it was true in cases of benign lesions as a result of vocal abuse. Voice abuse was found to be very common among house wives, teachers, singers, and young boys (talibs) memorizing Quran by heart.¹² Thyroidectomy was found to be the commonest surgical trauma leading to hoarseness because of recurrent laryngeal nerve damage and this is the same as quoted in international literature.^{12,13} Penetrating neck injuries may damage the larynx and subsequently cause hoarseness. Long term intubation,¹⁴ gastroesophageal reflex,¹⁵ primary acquired laryngeal amyloidosis and premature aging of werner's syndrome have been documented to cause hoarseness but were not found in our series.

CONCLUSION

Hoarseness of voice is a common symptom in ENT practice. It should not be taken lightly. Early diagnosis of its cause will prevent further complications.

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