

Aetiopathology of hoarseness in adult population

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Abstract

Hoarseness is generally due to change in quality of voice. The etiology of hoarseness varies from benign conditions to malignant diseases, hence should not be ignored. All cases of hoarseness persisting for more than 3 weeks should be investigated for the underlying diseases. It may indicate either malignancy of larynx or silent bronchogenic carcinoma. A descriptive study of cases was done in Bharati Vidyapeeth Deemed University Medical College and Hospital for a period of 18 months. The etiopathological factors, age and duration of presentation, and type of condition were analyzed to arrive at differential etiopathological conditions responsible at different age groups.

Key Words: Aetiopathology, hoarseness.

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INTRODUCTION

Voice may be defined as a laryngeal tone which can be heard or measured. The normal voice should possess certain characteristics of pitch, loudness and quality which make clear meaning and elicits an emotional response to ensure a pleasant tonal effect upon the listener. Hoarseness can be defined as a quality of voice, that is rough, grating, harsh, more or less discordant and lower in pitch than normal. Hoarseness is obviously a symptom and not a disease. However it is frequently an early symptom of serious diseases in the larynx or elsewhere. For the production of hoarseness of voice, there will be a change in anatomical structures and pathophysiological processes. When voice becomes disordered, the impedance to communication increases. When the voice deteriorates or is disordered as a result of strain or pathological changes the whole personality suffers with it giving rise to feelings of inadequacy and

insecurity. No consideration of voice can omit the psychological and economical implication involved. Voice disorders in those who depend upon good speech for their livelihood like the teachers, salesmen, singers and professional workers produce quite obvious anxieties on account of the serious professional and economical hazards involved. But in countries like India where uneducated people predominate, the approach to a hoarse voice becomes inevitable only when there is an association of some discomfort or ailment which alters the health of the patient markedly. IDL examination affords a clear, two-dimensional image of the larynx from above the anatomic structures of interest. It is limited by several factors. But persistence makes nearly all larynges visible, there is a small subset of patients who do not tolerate complete mirror laryngoscopy. It does not require sophisticated instrumentation and is very easy and less time consuming. One must look for presence of a lesion and sites and side of the lesion if any. Another very important point to be noted is the mobility of both vocal cords. These details are fair enough to diagnose most of the common clinical conditions. However in some cases histopathological examination is mandatory for diagnosis or before planning the treatment. If the patient is symptomatic and there is no obvious lesion, it would be a prudent decision to get a stroboscopy done. IDL examination thus serves as a screening tool to plan further work up for a patient presenting with hoarseness. One notable limitation of simple indirect laryngoscopy is that

the examination does not yield a recordable and reproducible image of the larynx and vocal tract. More importantly, the unaided human eye is unable to visualize the vibratory patterns of the true vocal folds during phonation. This study was taken up in order to get an insight to the problem of hoarseness, its incidence and aetiopathogenesis.

MATERIAL AND METHODS

- **STUDY DESIGN:** Descriptive study
- **STUDY PLACE:** Bharati Vidyapeeth Deemed University Medical College and Hospital, Sangli
- **STUDY DURATION:** December 2014 – June 2016
- **STUDY POPULATION:** Patients attending ENT department of Bharati hospital and also patients referred from other department in the same hospital. A total of 50 cases were studied during the study period.

Inclusion Criteria

All adult patients presenting with hoarseness attending ENT OPD and referred by various specialties

Exclusion Criteria

- Age group below 16 years.
- Other voice disorders like rhinolalia clausa, rhinolalia aperta, articulation disorders and central nervous system causes like bulbar palsy, Wegners granulomatosis, multiple sclerosis, stroke and Parkinson's disease.

OBSERVATIONS AND RESULTS

Table 1:

Age Group (yrs)	Males	Females	Ano Of Cases	Percentage (%)
16-20	1	3	4	08
21-30	2	2	4	08
31-40	3	3	6	12
41-50	8	2	11	22
51-60	7	5	11	22
60 +	11	3	14	28
Total			50	

Table 2:

Duration	No of cases	Percentage (%)
0-24 HRS	1	02
1-7 DAYS	3	06
1-4 WEEKS	9	18
1-6 MONTHS	28	56
6-12 MONTHS	5	10
>1 YEAR	4	08
Total		50

Table 3:

Sex	No of cases	Percentage (%)
Males	32	64
Females	18	36
Total		50

Table 4:

Occupation	No of Cases	Percentage (%)
Labourers/ Farmers/ Coolies	22	44
Housewives	12	24
Singers/ Teachers/Hawkers	06	12
Students	06	12
Others	04	08
Total		50

Table 5:

Sr. No	Associated symptoms	No of cases	Percentage (%)
1	Throat Pain	13	26
2	Painful Swallowing	08	16
3	Breathing Difficulty	09	18
4	Difficulty In Swallowing	03	06
5	Swelling In Neck	03	06
6	Cough	23	46
7	Fever	04	08
8	Vocal Fatigue	13	26
9	Painful Vocalisation	10	20
10	Cold	02	04
11	Heart Burn	04	08
12	Hemoptysis	01	02
13	Noisy Breathing	03	06

Table 6:

Sr. No	Pre Disposing factor	No of Cases	Percentage (%)
1	Allergy(A)	02	04
2	Betel nut(B)	15	30
3	Alcohol(D)	13	26
4	Septic Foci(F)	14	28
5	GERD(G)	12	24
6	Smoking(S)	20	40
7	Tobacco Chewing(T)	11	22
8	Vocal Abuse(V)	06	12

Table 7:

IDL EXAMINATION	No of cases	Percentage (%)
Vocal Cord Nodule	09	18
Vocal Cord Cyst	04	08
Vocal Cord Polyp	05	10
Vocal Cord Paralysis	07	14
Growth In Larynx & Hypo Pharynx	11	22
Congested Larynx	10	20
Others	04	08



Figure 1: Acute laryngitis left vocal cord palsy

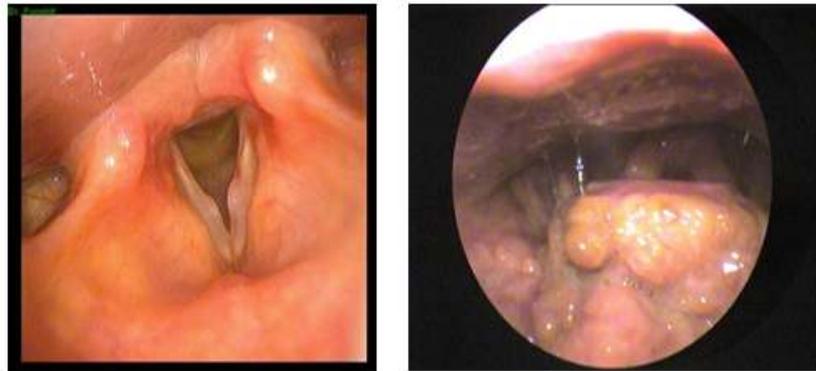


Figure 2: Bilateral vocal cord nodules upraglottic mass

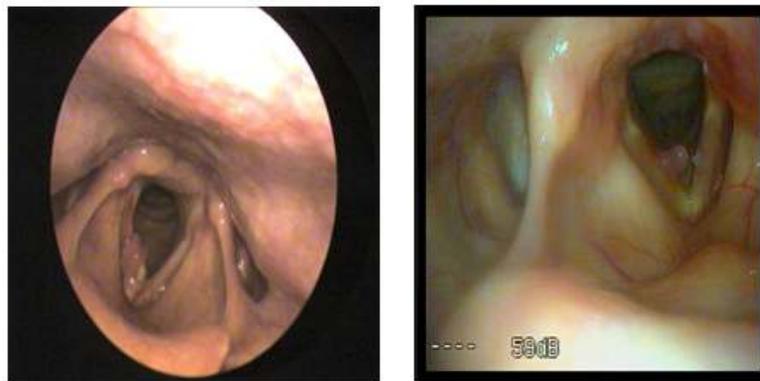


Figure 3: Right glottic mass right vocal cord polyp

DISUSSION

- Majority of patient were of more than 60 years age group.
- Male to female ratio was 2:1.
- Labourers constituted single large group (44%).
- Majority of patients were from lower socio-economic status.
- Majority of patients were from rural area.
- Smoking was commonest habit (40%).
- Maximum patients presented with duration of 1-6 months (56%).
- Apart from hoarseness other symptoms were cough, throat pain, vocal fatigue, painful vocalization, breathlessness and dysphagia.
- Ulcero-proliferative growth was commonest finding on indirect laryngoscopic examination.
- Malignancy was the commonest etiological leading to hoarseness (22%). Among males was malignancy and among females vocal cord palsy was commonest aetiology

CONCLUSION

- Elderly population (age > 60 years) in labour class are major patients presenting with hoarseness
- Smoking was commonly encountered habit among males
- Laryngeal malignancy is the commonest presenting feature in the rural population presenting with hoarseness and maximum are males.
- Majority of patients with laryngeal malignancy had habit of smoking (40%), betel nut chewing (30%), alcohol consumption (26%) and tobacco chewing (22%).
- Vocal nodules were the commonest cause of hoarseness in female population.

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