

A Study of etiopathogenesis of hoarseness in a tertiary health care centre

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Abstract

Background: Hoarseness can be defined as a change in the quality of voice which is caused by abnormal vocal cord movement **Aims and Objectives:** Study of etio-pathogenesis of hoarseness in a tertiary health care centre. **Methodology:** After approval from institutional ethical committee a cross sectional study was carried out at the tertiary health care centre during the one year period i.e. 2017 to January 2018 in the patients presented with hoarseness of voice in the Department of Otolaryngology were included into the study. In the one year period there were 86 patients were enrolled with valid consent. All details of the patients like age, sex, etiology and associated factor were asked. The data is presented in the tabular form and expressed in the percentages. **Result :** In our study we have seen that, the majority of the patients were in the age group of 50-60 were 24.42% followed by 40-50 were 22.09%, 30-40 were 17.44%, 20-30 were 15.12%, 10-20 were 10.47%, <10 were 3.49%. The majority of the patients were Male i.e. 60.47% and Female were 39.53%, The majority patients with etiology of Inflammatory Acute laryngitis in 17.44% followed by Vocal cord polyp-15.12%, Acute laryngitis- 12.79%, Chronic non specific laryngitis-10.47, Carcinoma larynx- 9.30, Tuberculosis of larynx- 8.14%, Reinke's edema, Vocal cord paralysis - 5.81%, Laryngeal papilloma- 4.65%, Muscle tension dysphonia Adduction gap and Functional aphonia in 3.49%, Intubation granuloma-2.33%, Dysphonia plicae ventricularis-1.16%. The majority of the patients were associated with Smoking were 48.84%, followed by Alcohol-44.19%, Tobacco-40.70%, Smoking + alcohol-33.72%, Senile-31.40%, Smoking+ tobacco in 26.74%, Vocal abuse-15.12%, History of trauma -10.47% **Conclusion:** It can be concluded from our study the majority of the patients were in the age group of 50-60, The majority patients with etiology of Inflammatory Acute laryngitis, Vocal cord polyp, The majority of the patients were associated with Smoking, followed by Alcohol, Tobacco. **Key Words:** Hoarseness, acute laryngitis, Vocal cord polyps.

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INTRODUCTION

Hoarseness can be defined as a change in the quality of voice which is caused by abnormal vocal cord movement¹. Hoarseness is a very vague complaint that encompasses various terms such as dysphonia, aphonia, diphonia,

dysresonance, voice breaks, odynophonia and vocal fatigue². Hoarseness is a common reason for a visit to Otolaryngologists as it hampers the quality of life of an affected person. It is a symptom rather than a disease entity. So, the underlying cause has to be searched for. Hoarseness is more common in certain professions such as teachers, singers, salesmen, preachers and leaders who have excessive use and misuse of voice. Young children who have habit of excessive talking or screaming are frequently suffered from this problem. Teachers have been found to have a higher incidence of dysphonia³. The etiology of hoarseness varies from upper respiratory tract infection to malignancies. Based on the onset of symptom hoarseness can be divided into acute and chronic⁴. Acute onset hoarseness is commonly seen which is usually associated with upper respiratory infection such as laryngitis, and the other causes include vocal abuse,

smoking, laryngeal trauma and thyroid surgery⁵ so we have done study to carry out Study of etiopathogenesis of hoarseness in a tertiary health care centre.

MATERIAL AND METHODS

After approval from institutional ethical committee a cross sectional study was carried out at the tertiary health care centre during the one year period i.e. 2017 to January 2018 in the patients presented with hoarseness of voice in the Department of Otolaryngology were included into the study. In the one year period there were 86 patients were enrolled with valid consent. All details of the patients like age, sex, etiology and associated factor were asked. The data is presented in the tabular form and expressed in the percentages.

RESULT

Table 1: Distribution of the patients as per the age

Age	No.	Percentage (%)
<10	3	3.49
10-20	9	10.47
20-30	13	15.12
30-40	15	17.44
40-50	19	22.09
50-60	21	24.42
>60	6	6.98
Total	86	100.00

The majority of the patients were in the age group of 50-60 were 24.42% followed by 40-50 were 22.09%, 30-40 were 17.44%, 20-30 were 15.12%, 10-20 were 10.47%, <10 were 3.49%.

Table 2: Distribution of the patients as per the sex

Sex	No.	Percentage (%)
Male	52	60.47
Female	34	39.53
Total	86	100.00

The majority of the patients were Male i.e. 60.47% and Female were 39.53%

Table 3: Distribution of the patients as per the etiology

Etiology	No.	Percentage (%)
Inflammatory Acute laryngitis	15	17.44
Vocal cord polyp	13	15.12
Acute laryngitis	11	12.79
Chronic non specific laryngitis	9	10.47
Tuberculosis of larynx	7	8.14
Reinke's edema	5	5.81
Vocal cord paralysis	5	5.81
Laryngeal papilloma	4	4.65
Muscle tension dysphonia Adduction gap	3	3.49
Functional aphonia	3	3.49
Carcinoma larynx	8	9.30
Intubation granuloma	2	2.33
Dysphonia plicae ventricularis	1	1.16
Total	86	100

The majority patients with etiology of Inflammatory Acute laryngitis in 17.44% followed by Vocal cord polyp-15.12%, Acute laryngitis- 12.79%, Chronic non specific laryngitis-10.47, Carcinoma larynx- 9.30, Tuberculosis of larynx- 8.14%, Reinke's edema, Vocal cord paralysis - 5.81%, Laryngeal papilloma- 4.65%, Muscle tension dysphonia Adduction gap and Functional aphonia in 3.49%, Intubation granuloma-2.33%, Dysphonia plicae ventricularis-1.16%.

Table 4: Distribution of the patients as per the associated factors

Associated factors	No.	Percentage (%)
Smoking	42	48.84
Alcohol	38	44.19
Tobacco	35	40.70
Smoking + alcohol	29	33.72
Senile	27	31.40
Smoking+ tobacco	23	26.74
Vocal abuse	13	15.12
History of trauma	9	10.47

(*More than one factor were associated in the patients so total may be more)

The majority of the patients were associated with Smoking were 48.84%, followed by Alcohol-44.19%, Tobacco-40.70%, Smoking + alcohol-33.72%, Senile-31.40%, Smoking+ tobacco in 26.74%, Vocal abuse-15.12%, History of trauma -10.47%.

DISCUSSION

The hoarseness can be divided into acute or chronic⁶. The acute onset is more common and mainly caused by inflammation like acute laryngitis whereas other cause could be viral infection, smoking, vocal abuse, laryngeal trauma or thyroid surgery⁷. The chronic onset is mainly caused by vocal cord nodule, polyp, laryngeal papillomatosis, tumor of vocal cord, functional dysphonia, smoking, vocal abuse, laryngopharyngeal reflux disease, post nasal drip, vocal abuse, neoplasm of thyroid, esophagus, lung, chronic granulomatous disease like tuberculosis or systemic disease like diabetes mellitus⁸⁻¹⁰. The complaints of hoarseness of long duration may imply serious disease, so it should not be ignored¹¹. In our study we have seen that, the majority of the patients were in the age group of 50-60 were 24.42% followed by 40-50 were 22.09%, 30-40 were 17.44%, 20-30 were 15.12%, 10-20 were 10.47%, <10 were 3.49%. The majority of the patients were Male i.e. 60.47% and Female were 39.53%, The majority patients with etiology of Inflammatory Acute laryngitis in 17.44% followed by Vocal cord polyp-15.12%, Acute laryngitis- 12.79%, Chronic non specific laryngitis-10.47, Carcinoma larynx- 9.30, Tuberculosis of larynx- 8.14%, Reinke's edema, Vocal cord paralysis - 5.81%, Laryngeal papilloma- 4.65%, Muscle tension dysphonia Adduction gap and

Functional aphonia in 3.49%, Intubation granuloma-2.33%, Dysphonia plicae ventricularis-1.16%. The majority of the patients were associated with Smoking were 48.84%, followed by Alcohol-44.19%, Tobacco-40.70%, Smoking + alcohol-33.72%, Senile-31.40%, Smoking+ tobacco in 26.74%, Vocal abuse-15.12%, History of trauma -10.47% These findings are similar to Shambhu Baitha¹² they found infection was the most common predisposing factor for hoarseness of voice (41.7%) followed by vocal abuse (40.9%), smoking, tobacco chewing and alcohol retake. Chronic non specific laryngitis (43.63%) was the most common aetiology for hoarseness of voice followed by acute laryngitis (26.63%), neoplastic conditions of larynx (14.54%) and neurological involvement of larynx (9.09%). Smita Soni¹³ found Most common cause for hoarseness was found out to be laryngeal neoplasms of which supraglottic growth being commonest (37%) in their study the differences may be due to difference in the study population and associated factors prevalent at different places.

CONCLUSION

It can be concluded from our study the majority of the patients were in the age group of 50-60, The majority patients with etiology of Inflammatory Acute laryngitis, Vocal cord polyp, The majority of the patients were associated with Smoking, followed by Alcohol, Tobacco.

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