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Original Article

Etiological Aspects of Hoarseness of Voice Among Patients Attending A Tertiary Care Hospital in Peshawar

Bakht Zada[1], Sobia Humerah[2*], Muhammad Habib[3], Javed Iqbal[4], Muhammad Nadeem[5] and Ali Khan[6]

[1]Department of ENT Head & Neck Surgery, Lady Reading Hospital MTI Peshawar, Pakistan
[2]Department of Physiology, Al Nafees Medical College, Islamabad, Pakistan
[3]Department of ENT, Peshawar Medical College Peshawar, Pakistan
[4]Department of ENT, Sahara Medical College, Narowal, Pakistan
[5]Department of ENT Department, M. Islam Medical & Dental College, Gujranwala, Pakistan
[6]Department of ENT, Gomal Medical College, Dera Ismail khan, Pakistan.

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***Corresponding Author:**
Sobia Humerah
Department of Physiology, Al Nafees Medical College, Islamabad, Pakistan
doctorsobiarwp@gmail.com

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ABSTRACT

Hoarseness of voice is much frequent in recent times and it alters the normal quality of voice **Objective:** To understand and assess the etiological factors of hoarseness. **Methods:** A Non-randomized, longitudinal and cross-sectional study was conducted in the ENT Head & Neck Surgery, Lady Reading Hospital Peshawar and Al Nafees Medical College and Hospital, Islamabad for six months duration from September 2021 to February 2022. All subjects with a history of hoarseness underwent routine specific clinical evaluation to establish diagnosis. The simple manual analysis was applied for final outcomes assessment with percentage and frequency using SPSS 21.0. **Results:** Participants enrolled were 150, amongst them, the patients of 21-30 and 31-40 years of age suffered from hoarseness. Likewise, 98 (72%) were males, 52 (28%) were females with a M: F proportion of 1.45: 1. According to the distribution, the utmost communal etiology observed in this study was acute laryngitis (30%), trailed by acid peptic laryngitis in 25.3%, laryngeal neoplasms in 8.7% and other includes laryngeal tuberculosis, intubation granuloma, and very rarely trauma. **Conclusions:** There was an etiological variability of hoarseness, varies from simple laryngitis to malignant neoplasms. For this reason, it is significant not to overlook hoarseness and a thorough examination, investigation and proper history should be taken.

INTRODUCTION

Hoarseness is a term that ordinary people frequently use to describe changes in the quality of their voice [1,2]. In fact, the voice of human is an extra-ordinary realization, which have capacity to convey not only multifaceted thoughts, but also refined emotions [3]. Baby cry's is the most commonly expected sign of life at the time of birth. Crying refers to the full physiological capacity necessary for a baby to survive [4]. Perhaps no other organ system of human body function so quickly after the birth. Although the sound is not visible during speech production, its absence or malfunction is obvious. Hoarseness is the alteration in the normal voice quality. This is a non-generic term, comparable to a patient complaining of dizziness when telling signs ranging from light-headedness to true vertigo [5,6]. It can include shortness of breath, hoarseness, stiffness, crackles in the voice, or unusual variations in pitch of voice. Otolaryngologists use the word dysphonia to describe abnormal sound quality [7,8]. Hoarseness

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complaints can be a serious illness and should not be ignored. As Chevalier Jackson said, "Hoarseness is a very important symptom and deserves to be treated as a separate issue because of the frequency." The reasons of hoarseness can be assessed if a careful history taken before the hoarseness occurs and a complete physical examination is performed [9]. The later may involve the vocal cords visualization, probably flexible nasal endoscopy, indirect laryngoscopy or video-laryngoscopy. In the absenteeism of URTI, the patient with hoarseness > 2 weeks should be fully assessed. If the patient has smoked in the past, neck and head cancer should be evaluated and must be ruled out. Voice overuse is the utmost communal reasons of hoarseness and result in added pathologies of vocal cords like vocal nodules [10,11]. Therapy with voice is a fundamental pillar in the treatment of some hoarseness. Well-recognized causing factors for disorders of voice are age (40-59 years), female gender, loud voice demand, vocal abuse, exposure to chemicals, extra-esophageal reflux, frequent colds, smoking and sinusitis [12]. Females are much predisposed to developing functional disorders of voice because of vulnerability, such as coping with anxiety, stress, negative emotions and depression. Professional voice users such as teachers, singers, politicians, actors, telephone workers, call center worker and broadcasters are at jeopardy of progressing towards occupational disorders of voice [13,14].

METHODS

This is a cross-sectional, longitudinal and non-randomized study held in In the ENT Head & Neck Surgery, Lady Reading Hospital Peshawar and Al Nafees Medical College and Hospital, Islamabad for six months duration from September 2021 to February 2022. All subjects with a history of hoarseness endured routine, specific clinical evaluation to establish diagnosis. In order to establish the diagnosis, a detailed interview, clinical examination, routine and special examination (direct laryngoscopy and nasopharyngo-laryngoscopy) were performed. The psychological, surgical issues like patients done with thyroidectomy or other problems other than the neck (i.e. RLN paralysis due to a malignant tumor of the lung or the thoracic oesophagus) were omitted from the study. Final outcomes analysis was done using SPSS 21.0 software.

RESULTS

Age (years)	Number of patients (%)
0 -10	3 (2)
11 – 20	15 (10)
21 -30	49(32.7)
31 -40	40 (26.7)
41 – 50	21 (14)
51 – 60	12 (8)
>60	10 (6.6)

Table 1: Distribution of patients with reference to the age group

Likewise, of the 150 subjects, 98 (65.3%) were male, 52 (34.7%) were female with a M: F proportion of 1.45: 1, as given in Table 2.

Sex	Number of patients (%)
Male	98 (65.3)
Female	52 (34.7)

Table 2: Gender wise distribution of patients

According to the distribution, the utmost communal reason was acute laryngitis (30%) trailed by acid peptic laryngitis in 25.3%, laryngeal neoplasms in 8.7% and others include laryngeal tuberculosis, intubation granuloma, and very rarely trauma as given in Table 3.

Presentation	No. of cases
Cough	31
Change of voice	15
Vocal fatigue	15
Fever	39
Weight loss	19
Irritation/Sore throat	31
Dysphagia	6
Painful vocalization	8
Painful Swallowing	5
Neck mass	3
Heart burn/vomiting	61
URTI	16
Haemoptysis	4
Respiratory distress	10
Stridor	3

Table 3: Clinical features of the patients

Presentation	No. of cases
Inflammatory Acute laryngitis	45 (30%)
Chronic simple laryngitis	22 (14.7%)
Acid peptic laryngitis	38 (25.3%)
Reinke's edema	2 (1.3%)
Vocal cord nodule	6 (4%)
Vocal cord polyp	4 (2.7%)
Chronic specific laryngitis	4 (2.7%)
Tuberculosis of larynx	2 (1.3%)
Carcinoma Hypopharynx	5 (3.33%)
Carcinoma larynx	13 (8.7%)
Papilloma of vocal cord	2 (1.3%)
Papillary carcinoma thyroid	1 (0.7%)
Laryngeal trauma	1 (0.7%)
Neurological	4 (2.7%)
Intubation granuloma	1 (0.7%)
Hypothyroidism	2 (1.3%)

Table 4: Patients distribution conferring to etiology (n=150)

The distribution of patients according to etiology is given l

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Table-4. Inflammatory acute laryngitis was the most common etiology in 45(30%) of patients followed by acute peptic laryngitis in 38(25.3%) and Chronic simple laryngitis in 22 (14.7%) of cases. The least common cause was Papillary carcinoma thyroid, Laryngeal trauma and Intubation granuloma in 1 patient each category.

DISCUSSION

In this research, hoarseness in the 31-40 age group was 40%. The male-to-female ratio in our study was 1.45: 1, similar to the study by Baitha et al., [12] and Saeed M and Ramazan [13]. The reason for such a big difference between the men and women in our study may be that the society is dominated by men, they are exposed to cigarettes, alcohol, pollution and voice abuse, while women in rural areas are unaware of what they are going through their health issues [14,15]. In our analysis, the incidence of acid peptic laryngitis was 25.3%, and Shrestha BL et al., [16] showed only 1.9%. This high incidence in this study may be due to the fact that the majority of patients suffered from GERD. Similarly, the incidence of acute laryngitis in our study was 30%, analogous to the study by Kivekäs I et al. [17]. As in other studies, the incidence of simple chronic laryngitis in this study was 14%. The incidence of Reinke's edema, vocal nodules and vocal polyps was 1.3%, 4%, and 3%, correspondingly. Our results differed from various other studies that presented a slightly lower or higher incidence of these ailments. In this study, only 1.3% have laryngeal tuberculosis, considerable lesser than the study by Zang et al., study [18]. This may be due to the higher incidence of pulmonary tuberculosis in Southeast Asia, but earlier diagnosis and treatment results in less incidence rate. The neurological and neoplastic causes reported here are 2.7% and 12%. The incidences were lesser than in other various analyses. In this analysis, the incidence of granuloma by intubation was 0.7%. In our study, hypothyroidism was the same as Maselli et al. [19], but differed from Hussain et al., [20] who presented 84.1%. The study showed that the prevalence of hypothyroidism is not higher in the Pakistani people.

CONCLUSIONS

Hoarseness is an emerging problem. It can be less dangerous as in the simple laryngnitis to the most dangerous form the malignant tumor. The need of the hour is to pay more attention to the hoarseness. The proper examination investigation and history of the patient provide with the knowledge necessary to treat hoarseness.

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