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# **Research Article**

# **BENIGN CONDITIONS OF LARYNX- A HOSPITAL BASED STUDY**

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#### ABSTRACT

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#### Key Words:

Benign, larynx, laryngoscopy, nodules.

Aims & Objectives: To evaluate age, sex and occupational distribution of benign lesions of larynx. Material & Methods: The present study was conducted in the Department of ENT, SMGS Hospital, Jammu from January 2018 to February 2019 on a total of 100 patients, between age group of 20-60 years. All patients were subject to indirect laryngoscopy and fibreoptic laryngoscopy to visualise base of tongue, valleculae, epiglottis, aryepiglottic folds, vestibular folds, vocal folds, pyriform fossae and movements of vocal cords. **Results**: The mean age of presentation was 35.6 years, with more male predominance, affecting mostly housewives. Vocal nodules were the most common finding. **Conclusion:** Early diagnosis of the benign lesions is very important for appropriate management and effective recovery.

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### **INTRODUCTION**

A knowledge of anatomy of larynx, specifically the micro architecture of the vocal fords and location of the lesion is essential. The layered structure of the vocal fold and its different mechanical and physical properties allows the superficial layer to oscillate independently for phonation. [1]

Benign conditions of larynx are defined as an abnormal mass of tissue in the larynx, the growth of which exceeds and is uncoordinated with that of the normal tissue and persist in the same excessive manner after cessation of stimuli which evoked the change.[2] Benign disease is usually located in the mucosal layer or in the superficial part of lamina propria.

Various benign conditions of larynx include conditions like vocal nodules, vocal polyps, reinke'sedema, vocal cysts, vocal fold varices, anterior webs, granulomas, papillomas and vocal sulcus.[1] The significance of benign lesions of larynx lies in the importance of its function in speech and contribution of voice to one's on personality. These lesions may affect voice quality and excessive growth may cause respiratory distress.

Benign tumors constitute 5% or less of all the laryngeal tumors. Out of them, papilloma is the most common benign tumor, which accounts for 85% of cases. [3] The common factors responsible for the development of benign lesions are vocal abuse, speaking in unnatural low tones, exposure to various irritants (like smoke, dust, fumes), allergy etc. The standard treatment for benign lesions of larynx include voice rest, vocal rehabilitation and surgical intervention (microlaryngeal surgery)

The aim of present study is to evaluate age, sex and occupational distribution of benign conditions of larynx.

### **MATERIAL AND METHODS**

The present study was conducted in the Department of ENT, SMGS Hospital, Jammu from January 2018 to February 2019 on a total of 100 patients, between age group of 20-60 years.

*Inclusion criteria:* Patients with hoarseness of voice, fatigue on speaking, pain on speaking and foreign body sensation in throat.

*Exclusion criteria:* Patients below 20 years of age, patients with proven diagnosis of malignancy of larynx, patients with speech defect due to defect in central nervous system, patients with oral or nasal pathology.

All patients were subjected to a detailed relevant history, general physical & systemic examination, and local external examination for laryngeal framework mobility, laryngeal crepitus and tenderness.

All patients were subject to indirect laryngoscopy and fibreoptic laryngoscopy to visualise base of tongue, valleculae, epiglottis, aryepiglottic folds, vestibular folds, vocal folds, pyriform fossae and movements of vocal cords.

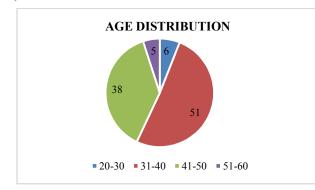
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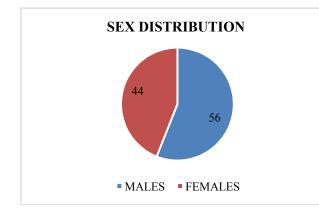
All patients were subjected to routine laboratory investigationscomplete blood count, renal function tests, liver function tests and coagulation profile.

# RESULTS

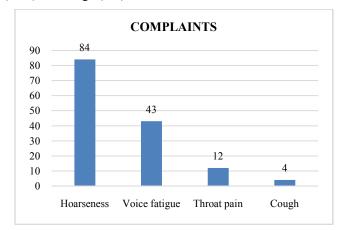
The mean age of presentation in our study was 35.6 years, with maximum number of patients belonging to the age group of 31-40 years.



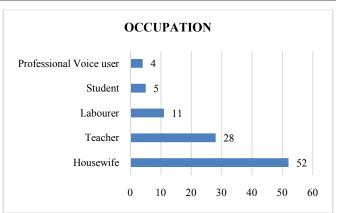
In our study, there were 56 males and 44 females.



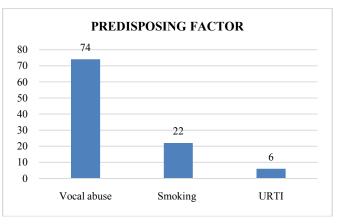
The most common presenting complaint was hoarseness of voice (84%), followed by voice fatiguability (43%), throat pain (12%) and cough (4%)



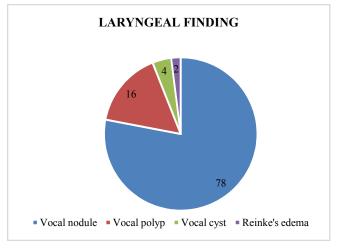
In our study, housewives were most commonly affected (52%), followed by teachers (28%), labourer (11%), student (5%), professional voice user/singer (4%).



In our study, the most common predisposing factor was vocal abuse (74%), followed by smoking (22%) and upper respiratory tract infection (6%).



In our study, the most common laryngeal finding was vocal nodules (78%), followed by vocal polyps (16%), vocal cysts (4%) and reinke'sedema (2%).



# DISCUSSION

Voice disorders can have a significant influence on vocational, social and the emotional adjustment of patients. Benign conditions of larynx are of interest and importance to the otolaryngologist, not only because of the symptoms which they produce by interference with normal functions of vocal mechanism or by obstruction of the respiratory tract but because of the necessity of distinguishing them from malignant laryngeal lesions. [4] Vocal nodules are bilateral lesions of functional aetiology, found at the midpoint of the vocal folds and are confined to the superficial squamous epithelium. Histopathological studies showbasement membrane thickening with areas of haemorrhage, fibrin deposits and hyalinization. Vocal polyps are usually unilateral, localised areas of edematous tissue, although some may be angiomatous and contain areas of haemorrhage, the site of lesion being superficial to vocal ligament. Reinke's edema is a bilateral diffuse condition where there is a collection of polypoidal tissue in the superficial layer of lamina propria. Vocal cysts may be mucous retention or epidermoid cyst. [1]

The mean age of presentation in our study was 35.6 years, with maximum number of patients belonging to the age group of 31-40 years. Muniraju M *et al.*[4], in their study showed maximum incidence between 31-40 years age group. However, Buche AR *et al.*[5], in their study showed maximum incidence between 21-30 years.

In our study, there were 56 males and 44 females. Sharma M *et al.*[6], in their study revealed male predominance.

The most common presenting complaint was hoarseness of voice (84%), followed by voice fatiguability (43%), throat pain (12%) and cough (4%). Hegde MC *et al.*[7], showed most common complaint to be hoarseness of voice, followed by cough.

In our study, housewives were most commonly affected (52%), followed by teachers (28%), labourer (11%), student (5%), professional voice user/singer (4%). Buche AR *et al.*, in their study also showed housewives to be most commonly affected.

In our study, the most common predisposing factor was vocal abuse (74%), followed by smoking (22%) and upper respiratory tract infection (6%). Muniraju M *et al.*, in their study also showed vocal abuse to be most common predisposing factor.

In our study, the most common laryngeal finding was vocal nodules (78%), followed by vocal polyps (16%), vocal cysts (4%) and reinke'sedema (2%). However, Hegde MC *et al.*, in their study revealed vocal polyps to be the most common finding. Buche AR *et al.*, showed vocal nodule to be the most common finding.

# CONCLUSION

Benign conditions of larynx produce symptoms which range from mild hoarseness to stridor. Early diagnosis of the benign lesions is very important for appropriate management and effective recovery.

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