



A CLINICAL STUDY OF BENIGN LESIONS OF LARYNX

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ABSTRACT **Aim of Study:** To analyze over a period of 6 months, the demographics such as age & sex distribution, occupation, the site of involvement, symptomatology and management of the most frequent benign lesions of larynx.

Materials and Methods: Ten patients presenting with hoarseness of voice and diagnosed with benign lesion of larynx in ENT OPD of GGH, Guntur were included in the study after taking their consent and the study was carried out for a period of 6 months between January 2019 to June 2019.

Results: In this study, it was noted that males were predominantly involved, maximum incidence between 31-40 years. Agricultural labourers among males and housewives among females were commonly involved. Vocal cord polyp was the most common benign lesion of larynx, others included bilateral vocal cord nodules and cysts. Most important predisposing factor was being vocal abuse in all the cases. Treatment given included MLS, voice rest and speech therapy according to the diagnosis and patients were followed up for six months.

Conclusion: It was observed that vocal abuse was the most common predisposing factor for benign lesions of larynx and a multi modality treatment is necessary including medical, surgical and speech therapy to prevent recurrence.

KEYWORDS : Benign lesions of larynx, Microlaryngeal surgery, Speech therapy

INTRODUCTION

The vital function of larynx is to produce the voice and facilitate communication.

Larynx can be involved with benign lesions of various causes: infective, inflammatory, traumatic, neurogenic, congenital, functional and benign neoplasms.

A benign organic lesion of the larynx includes non-infective and non-traumatic laryngeal disorders.

Vocal abuse along with smoking, alcohol, allergy seem to be the most common causative factors of laryngeal disorders.

A benign lesion of the larynx is defined as 'an abnormal mass of tissue in the larynx, the growth of which exceeds and is uncoordinated with that of normal tissue and persists in the same excessive manner after cessation of stimuli which evoked the change.

Benign lesions of the larynx generally produce a common symptom-hoarseness of voice. Diagnosis is the key for the management of the disorder. Laryngologist needs to distinguish them from malignant lesions as some cases of benign lesions also present with features like that of malignant lesion.

So, it's timely diagnosis is very important for effective management.

AIM OF STUDY

To analyze over a period of 6 months, the demographics such as age & sex distribution, occupation, predisposing factors, symptomatology and management of the most frequent benign lesions of larynx.

MATERIALS AND METHOD

The study was conducted in the department of ENT, GGH, Guntur during a period of 6 months i.e. from January 2019 to June 2019. Ten cases of benign lesions of larynx are included in this study.

Inclusion criteria:

- 1) Patients who were diagnosed with the benign lesion of larynx.
- 2) Age group more than 5-65 years.
- 3) Patients who gave consent for the study

Exclusion criteria:

- 1) Age group less than 5 years and greater than 65 years.
- 2) Patients who didn't give consent for the study.

The study was conducted in the department of Otorhinolaryngology, G.G.H, Guntur. The cases of benign lesions of larynx in a period of six months were included in this study.

Ten patients who were clinically diagnosed as cases of benign lesion of larynx were included in the study.

A complete clinical history of each patient was taken. Detailed routine ear, nose and throat examination of the patient was done. Indirect laryngoscopy or videolaryngoscopy with angled Hopkins endoscope was done after taking consent.

Therapy was based on the diagnosis. All patients included in the study were advised microlaryngeal surgery to excise the lesion followed by voice rest and speech therapy. Patients were followed up for a period of 3 months.

Data was categorised according to name, age, sex, clinical features, provisional diagnosis, treatment given and final outcome of the patient.

RESULTS

Table 1: Age Distribution

Age	No. of patients	Percentage
5 – 10 years	0	0
11 – 20 years	0	0
21 – 30 years	1	10%
31 – 40 years	4	40%
41 – 50 years	2	20%
51 – 60 years	3	30%
61 – 65 years	0	0%

In this study most of the patients were between age group 31 to 40 years.

Table 2: Sex distribution

Sex	No. of patients	Percentage
Male	8	80%
Female	2	20%

In this study males are more commonly involved.

Table 3: Occupation

Occupation	No. of patients	Percentage
Agricultural laborer	4	40%
Business	2	20%
House wife	1	10%
Teacher	1	10%
Other	2	20%

In our study we saw that agricultural labourers were most commonly affected by these lesions.

Table 4 : Predisposing factors

Predisposing factor	No. of patients	Percentage
Vocal abuse	4	40%
URTI	1	10%
Smoking	2	20%
Alcohol consumption	3	30%

Vocal abuse was the main predisposing factor noticed

Table 5 : Clinical presentation

Symptom	No. of patients	Percentage
Hoarseness of voice	10	100%
FB sensation in throat	1	10%
Difficulty in swallowing	2	20%

Hoarseness of voice was the most common complaint. It was associated with symptoms like FB sensation and dysphagia.

Table 6 : Duration of hoarseness of voice

Duration	No. of patients	Percentage
< 1 month	0	0%
1 - 3 months	5	50%
4 - 6 months	1	10%
7 - 9 months	1	10%
10 - 12 months	2	20%
>1 year	1	10%

Maximum number of patients presented during 1-3 months

Table 7 : Diagnosis

Diagnosis	No. of patients	Percentage
B/L Vocal nodules	2	20%
Vocal polyps	4	40%
Cyst	2	20%
Hemangioma	1	10%
Fibroangioma	1	10%

Vocal cord polyp was the most common lesion.

Table 8 : Outcome

Cases	Follow up at the end of 3 months
Vocal polyps	No recurrence
Vocal nodules	No recurrence
Cysts	No recurrence
Hemangioma	No recurrence
Fibroangioma	No recurrence

All cases were successfully managed by microlaryngeal surgery.

DISCUSSION

Benign lesions of larynx constitute an interesting array of lesions, etiological factors for lesions such as vocal nodules, vocal polyps, mucosal hemorrhage, intracordal cyst seems to be vibratory trauma. Secondary influences such as smoking, infection, allergy, acid reflux may also increase the mucosa's vulnerability to the kind of injuries that may occur during mucosal oscillation.

Vocal cord nodules appear as symmetric bilateral mass lesions, white to opaque, firm and present at the junction of anterior and middle third of vocal folds. They result in hourglass closure of glottal configuration and will affect vocal fold mucosal wave and vibration. Vocal cord polyps are more commonly unilateral, translucent, red pendulated arise in the free edge of anterior third of vocal fold. A multimodality mode of treatment is necessary to avoid recurrence of these lesions. Primary supportive medical treatment with adequate hydration to promote lubrication of vocal cords is important. Associated nasal, sinus and oropharyngeal infections should also be managed with appropriate treatment. Systemic antihistamine and decongestant combinations may be required to treat. Short term corticosteroids have been indicated in a number of cases and they facilitate by reducing the oedema of vocal cords there by reducing hoarseness of voice. Appropriate measures for acid reflex should be taken. Antibiotics are used to treat associated upper respiratory tract infections.

In study of 50 patients vocal cord polyp constituted 66% of the cases, vocal cord nodule 16%, papilloma, cyst and keratosis 4% each respectively, molluscum contagiosum was found in 2% and 4% had no evidence of tumor. This study had male preponderance with M.F ratio

of 2.5:1. Vocal therapy is a major treatment modality for almost all types of dysphonia. It may be sole treatment of certain voice disorders or it may precede and follow pharmacological or surgical interventions.

Recommendation include complete vocal silence for a week or two, no whispering, limited vocal use in which speaking is allowed only when absolutely necessary, reduced vocal intensity, elimination of singing, limitation of physical exercise and activities that cause the breath to be impounded by the closure of glottis and avoiding coughing and clearing of throat whenever possible. If the recovery procedures have allowed the larynx to be normal then it is followed by training that modifies previous habit patterns and replaces them with more efficient phonatory behaviours. Benign mucosal disorders are excised by using microlaryngeal surgery with help of microscopes, laryngoscopes and microinstruments. These procedures are designed to improve aerodynamic efficiency and vocal quality by creating a smooth vocal fold edge that is not excavated with overlying flexible epithelium. Laser may be used with great precaution and precision.

In a study of 42 patients over a period of 5 years, with age group ranging from 7-80 years, 40.47% of the patients had vocal cord polyps, 28.57% had vocal nodules, 14.30% had tuberculosis of larynx, 4.76% had laryngocele, 4.76% had epiglottic cysts, 2.3% had subglottic hemangioma. However, neoplastic lesions like papilloma, adenoma and other non neoplastic lesions like intubation granuloma, contact ulcer granuloma, Reinke's edema were not encountered. Males were predominantly involved over females, with a ratio of 2.82:1.

In another study of 60 patients vocal cord polyp was found in 50% of the cases, vocal nodule in 21.7%. Male preponderance with M.F ratio of 2.5:1 was observed.

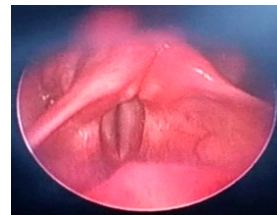
CONCLUSION

Human voice is an extraordinary attainment, which is capable of conveying not only complex thoughts but also subtle emotions. In our present study, it is seen that benign lesions of larynx were more common in males, maximum incidence between 31-40 years. Vocal cord polyp was the most common lesion apart from vocal nodules, Cysts. Vocal abuse was a strong predisposing factor in all the cases included in the study others being upper respiratory tract infection, smoking and alcohol consumption. Hoarseness of voice was the most common clinical presentation. Definitive treatment of micro laryngeal surgery, voice rest and speech therapy was advised to patients and there was no recurrence in any case in 3 month follow up period.

Images



Pre operative photo of polyp



Post operative photo

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