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.

A vocal abuse along with smoking, alcohol, allergy seems 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, the site of involvement, 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.

Table 1: Age Distribution

<table>
<thead>
<tr>
<th>Age</th>
<th>No. of patients</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 – 10 years</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>11 – 20 years</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>21 – 30 years</td>
<td>1</td>
<td>10%</td>
</tr>
<tr>
<td>31 – 40 years</td>
<td>4</td>
<td>40%</td>
</tr>
<tr>
<td>41 – 50 years</td>
<td>2</td>
<td>20%</td>
</tr>
<tr>
<td>51 – 60 years</td>
<td>3</td>
<td>30%</td>
</tr>
<tr>
<td>61 – 65 years</td>
<td>0</td>
<td>0%</td>
</tr>
</tbody>
</table>

Table 2: Sex distribution

<table>
<thead>
<tr>
<th>Sex</th>
<th>No. of patients</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>8</td>
<td>80%</td>
</tr>
<tr>
<td>Female</td>
<td>2</td>
<td>20%</td>
</tr>
</tbody>
</table>

Table 3: Occupation

<table>
<thead>
<tr>
<th>Occupation</th>
<th>No. of patients</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural laborer</td>
<td>4</td>
<td>40%</td>
</tr>
<tr>
<td>Business</td>
<td>2</td>
<td>20%</td>
</tr>
<tr>
<td>House wife</td>
<td>1</td>
<td>10%</td>
</tr>
<tr>
<td>Teacher</td>
<td>1</td>
<td>10%</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>20%</td>
</tr>
</tbody>
</table>

In this study males are more commonly involved.

RESULTS

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.

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.
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 to opaque, firm and present at the junction of anterior and middle third of vocal fold edge that is not excavated with overlying flexible epithelium. Vocal cord polyps are more commonly unilateral, translucent, red pendulated and will affect vocal fold mucosal wave and vibration. 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 fold edge that is not excavated with overlying flexible epithelium. Vocal cord polyps are more commonly unilateral, translucent, red pendulated and will affect vocal fold mucosal wave and vibration.

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 reflux 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 laryngcele, 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

REFERENCES


10. Clinical study of benign lesions of larynx. Dr. Muniraju. M, Associate Professor, Dr. Vidya. H, Junior Resident, both authors are affiliated with Department of ENT, Dr. B. R. Ambedkar Medical College and Hospital, Bangalore, Karnataka, India.