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RESEARCH ARTICLE

A CLINICAL STUDY OF BENIGN VOCAL LESIONS.

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Key words:-

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Abstract

Benign vocal lesions are non-cancerous growths of abnormal tissue on the vocal folds. Vocal nodules and polyps account for the majority of benign structural vocal fold disorders, which are usually associated with abusive phonation habits.

Material and Methods: This prospective study was conducted in 100 patients who were diagnosed with various benign lesions of larynx during a period of 18 months. All malignant cases were excluded from this study.

Results: Male preponderance was seen in our study. Vocal cord polyps were commonest type of lesion. In our study Hoarseness of voice was seen 100% patients.

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Introduction:-

The larynx is a major component of upper respiratory tract.¹ The larynx serves several functions with the major functions being airway protection, respiration and phonation. Normal voice requires laryngeal function to be coordinated, efficient and physiologically stable. Any imbalance of this system can affect phonation. Benign vocal lesions are non cancerous growth of abnormal tissue on vocal folds. They include vocal nodules, vocal polyps, polypoid degeneration (Reinke's edema), cysts, laryngocele, laryngeal web, epiglottic cysts and subglottic hemangiomas. Vocal nodules and polyps account for the majority of structural vocal fold lesions which are usually associated with abusive phonation habits. Since these lesions are not cancerous, they are usually not life threatening. However these lesions may affect voice quality and excessive growth may cause breathing problems.²

Material And Methods:-

This prospective study was done in Department of ENT, SKIMS MCH Bemina from March 2017 to August 2018. 100 patients with benign lesions of larynx were included in study. Patients suspected with malignant pathology were excluded from our study. A thorough clinical workup of all patients was done which included complete history of voice problem and detailed laryngeal examination.

Observations

In our study there were 69 males and 31 females with ratio of 2.22:1. Majority of patients i.e 48 were in age group of 21-40.33 and 13 patients were aged between 41 -60 and >60 respectively whereas only 6 patients were less than 20 years.

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Table 1:-

Type of lesion	Number	Percentage
Vocal polyp	51	51
Vocal nodule	43	43
Vocal cyst	3	3
Vocal cord papilloma	1	1
Reinke edema	2	2

Table 2:-

Site of involvement	Number	Percentage
Right vocal cord	41	41
Left vocal cord	23	23
B/L vocal cord	36	36

Most of the cases in our study group had vocal cord polyps(51%) followed by vocal cord nodules(43%). Vocal cord papilloma was seen only in 1 patient (Table no 1). In our series right vocal cord was involved in 41 patients, left vocal cord in 23 patients and both vocal cords in 36 patients (Table no 2). Hoarseness of voice was the commonest presenting symptom being present in 100 patients. HOV was associated with vocal fatigue in 73 patients, with painful deglutition in 30 patients, foreign body sensation in throat in 21 patients and difficulty in breathing in 7 patients. The patients were mostly having occupation that demanded excessive use of voice. Teachers (31), bus conductors/drivers (23) muslim preachers(15) constituted major group of patients. 12 were students, 7 were labourers, 6 were housewives, 4 were office employees and 2 were businessmen. History of vocal abuse was seen in majority of patients (93). Smoking and tobacco chewing was seen in 72 and 5 patients respectively. History of APD was seen in 49 patients.

**Pre and Post Operative picture of Left Vocal cord Polyp**

Microsurgical surgery was done in 91 patients. 9 patients (8 patients having vocal nodule and 1 patient of reinke's edema) were managed conservatively by vocal rest and speech therapy. Operative procedures done were simple excision, stripping and endoscopic decapitation with marsupialisation depending upon type of lesion.

Discussion:-

Benign vocal lesions are non-cancerous growths of abnormal tissue on the vocal folds. Each of these lesions has a potentially different cause, but there are common factors that contribute to their development. Generally, benign vocal lesions occur in response to injury, but are also well known to have multiple causes. The initial injury may be brought on by

1. Chronic vocal use/misuse. For example, excessive loudness and use in a teacher, or singing excessively with poor breath support in a singer
2. Acute vocal misuse. For example, screaming at the football game, or an uncontrolled coughing spell during an upper respiratory infection.
3. Trauma resulting from infection.
4. Trauma from gastric reflux (GERD) injuring the laryngeal mucosa (protective cover of the vocal folds).

The sex incidence in our study with male preponderance (2.2:1) is similar to other studies.^{1,3,4,5} Higher incidence in male population can be attributed to excessive use of voice in males because of them involved more in occupations demanding excessive vocal use. The commonest age group of presentation was 21-40 years which is considered as the most active period of life. Our observation is supported by Stewart JP.⁶, Hegde MC.³, Singhal P.⁷

In our study, vocal cord polyps were the commonest. This is in accordance with Hegde MC et al.³ Kambic et al.⁸ had an incidence of 68.3%.

Hoarseness was the most common presenting feature (100%). The findings in our study was in accordance with the study conducted by Hegde MC³ and Sharma M¹.

The patients were mostly involved in occupations demanding an excessive use of voice. In our study it was observed that the benign laryngeal lesions were common among those who were using their voice excessively e.g. teachers. The lesions also have close association with cigarette smoking. This is in accordance with Sabah Uddin Ahmed et al.⁹

Conclusion:-

Benign vocal cord lesions are common pathologies that will be seen in clinic. The management options of these lesions differ, and correctly diagnosing these lesions is important in treatment outcomes. Treatment initially focuses on medical management of irritants, improving vocal habits and vocal behavior modification through speech therapy. Preservation of the normal anatomy is an important component to optimizing vocal outcomes. Surgical treatment, when indicated, should be precise with an adherence to the principles of advanced surgical technique.

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