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Research Article

CLINICAL AND PATHOLOGICAL STUDY OF BENIGN LESIONS OF LARYNX

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ABSTRACT

A clinical study was undertaken to analyze the age, sex distribution and symptomatology, pathological features of the common types of benign lesions of larynx.A two year prospective study from 2012 to 2014 at SVS Medical college Mahbubnagar- A tertiary referral hospital.A total of 36 patients with benign laryngeal lesions were included based on symptomatology, such as hoarseness of voice, foreign body sensation, throat pain, neck mass and cough and with positive clinical findings on indirect laryngoscopy and neck examination. The patients ranged from 10-60 years.All non-operative cases and malignant cases were excluded. Diagnostic hematological and radiological investigations and therapeutic microlaryngoscopic procedures were employed and material sent for pathology. Results analysed and presented. A male predominence with M:F ratio of 2:1 was observed. Majority of the patients were in the 21-30 age group. Vocal polyps are the commonest type of lesion. In our study, hoarseness of voice proved to be the commonest symptoms .vocal abuse is common etiological feature.Early diagnosis of the lesions can lead to effective management and good recovery

Key words: benign lesions, larynx, Hoarseness

INTRODUCTION

Larynx is an eloquent organ. It lodges the vocal cord which initiate the voice, aids respiration, protects lower respiratory tract. Normal voice requires laryngeal function to be coordinated, efficient, and physiologically stable. Imbalances in this delicate system can produce various symptomatology. The significance of benign lesions of the larynx also lies in the importance of its function in speaking and the contribution of the voice to one's identity.

OBJECTIVES:The aim of the study was to determine the demographic characteristics (age, sex, occupation etc.), and symptomatology and pathological features and prognosis of the most prevalent benign tumours of the larynx over a period of two years.

MATERIALS & METHODS

This is a prospective type of study carried out from 2012 august to 2014 august at department of otorhinolaryngology SVS medical college Mahbubnagar.

Total 36 patients selected based on their symptoms. Inclusion criteria patients who came with hoarseness/change in voice;Pain on speaking Foreign body sensation in the throat;Fatigue of voice; Age b/n 10-60Both sexFindings were correlated with indirect laryngoscopy.

Exclusion criteria is :Fever with upper respiratory tract infection ,<3 weeks duration history Previously operated, >60 years of age, Ulcero proliferative growth on examination.Congenital conditions, Defects due to CNS lesions, Unfit for general anaesthesia Detailed history and physical examination was done to all the patients included in the study information such as age, sex, occupation, was recorded. History with respect to the presenting symptoms, duration and etiological precipitating causes was taken.
Following Investigations that were routinely performed includes routine blood investigations, radiological investigations [X-ray paranasal sinuses, X-ray chest (postero-anterior view), plain X-ray (neck- lateral view) ,indirect laryngoscopy, video laryngoscopy Microlaryngeal surgery and biopsy and pathological examination.

RESULTS

Table I: Distribution of patients according to Age.

Age	No of Patients	%
11 – 20	3	8.33
21 - 30	12	33.3
31 - 40	9	25
41 - 50	6	16.67
51 - 60	6	16.67
Total	36	100
Mean ± SD	35.25 ± 11.7	

On age wise distribution it was observed that majority of the cases were in the age group of 21 - 30 years.

Table 2: Frequency distribution table based on gender

Gender	Frequency	percentage
Male	24	66.6
Female	12	33.3
Total	36	100

In the present study it was observed that 66.6 % were males and 33. 3% were females.

Table 3: Frequency distribution table based on geographical distribution Total number of patients 36

REGION	NO OF PATIENTS N=36 (% OF N)
URBAN	10 (27.7)
RURAL	26 (72.2)

in the present study it is observed that 26 patients out of 36 i.e 72.2% come from rural background and 10 patients out of 36 i.e 27.7% come from urban background

Table 4: Frequency distribution table based on occupation

Occupation	Frequency	percentage
Teacher	7	19.4
Student	5	13.9
House wife	10	27.8
Business	6	16.7
Farmer	2	5.6
Attender	1	2.8
Nurse	1	2.8
Driver	1	2.8
Watchman	1	2.8
Labourer	1	2.8
Shopkeeper	1	2.8
total	36	100

it was observed that incidence of benign tumors in subjects with occupation of house wife was high 27. 8 %.

Table 5: Frequency distribution table based on etiology

ETIOLOGY	NO OF CASES	%
VOCAL ABUSE	25	69.4%
SMOKING	14	38.9%
ALCOHOL	10	27.8%

In the present study 69.4% of patients presented with etiological habits of vocal abuse. and 38.9% of patients presented with etiological habits of smoking. And 27.8% of patients presented with etiological habits of alcohol

Table 7: Frequency distribution table based on symptoms

SYMPTOM	No OF PATIENTS	percentage
Hoarseness of voice	36	100%
Vocal fatigue	19	52.8%
Pain in throat	6	16.7%
Foreign body sensation in throat	3	8.3%

In the present study all patients presented with hoarseness of voice

Table 8: Frequency distribution table based on Diagnosis

Diagnosis	Frequency	Percentage
Vocal cord polyp	18	50
Papilloma	2	5.6
vocal nodules	7	19.4
Vocal Cyst	2	5.6
Vocal keratosis	2	5.6
Heamangioma	3	8.3
Intubation Granuloma	2	5.6
Total	36	100

In the present study it was observed that the incidence of polyps was 50 % followed by vocal cord nodules comprised of 19.4.

Table 9: Frequency distribution table based on distribution of lesion in the larynx

LESION	TOTAL	RIGHT	LEFT	B/L
Vocal polyp	18	13	5	0
Vocal nodules	7	0	0	7
Haemangioma	3	1	2	0
Papilloma	2	0	0	2
Intubation granuloma	2	0	0	2
Keratosis	2	0	0	2
Vocal cyst	2	0	2	0
total	36	14 (38.8%)	9 25%	13 (36.11%)

Table 10: Frequency distribution table based on Histopathological Diagnosis

Histo pathology	Frequency	percentage
Inflammatory polyp	13	36.1
Telangectatic Polyp	5	13.9
vocal nodulesWith hyperkeratosis of epithelium	7	19.4
Vocal keratosis	2	5.6
Heamangioma	3	8.3
papilloma	2	5.6
Granuloma	2	5.6
Retention cyst	2	5.6
total	36	100

In the present study histopathological diagnosis shows an incidence of 36.1 % of inflammatory polyps,andtelangectatic polyps 13.9 %.

DISCUSSION: A total of 36 patients with benign tumours of the larynx are taken in the present study. In the present study age of the patients ranged from 10 to 60 years and youngest being 11 years and oldest is 56 years. The majority of the patients in the present study lie in the age group 21-30 years, total 12 patents out of 36 patients which is 33.3% of total patients, which is consistent with study by P.Singhal[1.]

In the present study both sex are included. Out of 36 patients there are 24 patients are male which is 66.6% and 12 patients are females i.e 33.3%. Male predominance is clearly seen over females with a ratio of 2.16, which is consistent with other studies by H.Chopra[2] and S.K Ghosh[3].In present study out of 36 patients 26 i.e 72.2% from the rural area and 10 patients 27.7% from urban area. Rural and Urban ratio is 2.6:1, which is correlated with the study of S.Baitha[4].

In the present study housewives are common victims explained by system of joint families and the large number of children in each family probably accounts for the common occurrence of lesions which is correlated with H.Chopra[2] et al and Suliman soudi[5] et al.

In the present study vocal abuse is the predisposing factor 69.4% and alcohol and smoking contributes significantly. This is constitute with other studies S.K Ghosh[3] and H.Chopra[2] et al.In the present study it is observed that the incidence of polyps was 50 % i.e 18 out of 36,which is correlated with other studies P.Singhal[1] ,Hedge[6] et al , Hollinger PH and Johnson KC[7].On histopathology out of 18 polyps there are 13 inflammatory polyps and 5 telangectatic polyps and all cases of vocal nodules show hyperkeratosis of epithelium. Two cases of vocal cyst shows mucous retention cyst. In study by suliman soudi[5] maximum vocal polyps are angiomatous polyps and all cases of nodules show hyperkeratosis. In study by Mangal singh[8]et show more number of angiomatous polyps this deviation may be due to ecological and geographical variation. In his study all cases show hyperkeratosis of epithelium in vocal nodules.

CONCLUSION

Benign laryngeal lesions are an effect of diverse forms of laryngeal pathology. Vocal polyps are the most common benign tumours found. Males are more affected with these lesions. Most common affecting age group is 21-30 years,Most common affecting people are rural population. Hoarseness of voice is most common presenting symptom. Vocal abuse is the most common predisposing factor. Housewives are most common victims.

The gold standard for diagnosis is for these lesions is careful history, examination by Indirect laryngoscopy and VideolaryngoscopyS followed by micro laryngeal surgical resection and material subjected to histopathology.In all cases clinical diagnosis is confirmed by histopathology. No recurrence found in 6 months of follow up.

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