

Original Research Article

A study on non-malignant lesion of larynx

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ABSTRACT

Background: Benign laryngeal lesions are a spectrum of laryngeal diseases where symptoms vary from discomfort in throat, pain in throat, change of voice to stridor. Prompt diagnosis and intervention will reverse the conditions in certain laryngeal lesions.

Methods: A prospective study was carried out in department of ENT, Madras Medical College/Institute of Child Health, Chennai between August 2013-November 2015 of non-malignant lesions of larynx. All these cases underwent a thorough ENT examination, examined under direct laryngoscope or micro laryngeal examination as the situation warrants. Benign non-neoplastic lesions are usually treated by excision biopsy and the biopsy results were confirmed.

Results: This study included 50 cases of non-malignant lesions of larynx. In our study 34% of the cases fall in the age group of 20-30 years, followed by 22% in age group of 0-10 years. The mean age group was 26 years. Males were 72% and female constituted 28%. The hoarseness is the common symptom in 36 patients, while stridor was the predominant symptom in 14 patients. The treatment modality followed were micro laryngeal excision in 40 cases, tracheostomy in 6 cases.

Conclusions: Management of the non-malignant lesions of larynx, by early diagnosis with effective conservative management in the initial stages, will reduce the necessity of the surgery. Counselling, voice rehabilitation, micro laryngeal surgery is the best modality.

Keywords: Non-malignant, Larynx, Management

INTRODUCTION

Benign laryngeal lesions are a spectrum of laryngeal diseases where symptoms vary from discomfort in throat, pain in throat, change of voice to stridor. Prompt diagnosis and intervention will reverse the conditions in certain laryngeal lesions. The significance of benign lesions of the larynx lies in the importance of its function in speaking and the contribution of the voice to one's identity.¹

Various authors have defined benign neoplasms of the larynx. New GB and Erich JD defined it 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".² Hollinger defined in 1951, "as any mass of tissue in the larynx which does not present characteristics of malignancy".³

The most common presentation of the laryngeal lesion is hoarseness, which refers to "laryngeal dysfunction caused by abnormal vocal cord vibration".⁴ Conservative management is offered for the lesions due to vocal abuse such as voice rest and voice therapy. Surgical removal with microsurgical instruments remains the mainstay of

the therapy for laryngeal polyps, cysts and recalcitrant nodules.⁵

METHODS

A prospective study was carried out in department of ENT, Madras Medical College/Institute of Child Health, Chennai between August 2013- November 2015 of non-malignant lesions of larynx. All these cases underwent a thorough ENT examination, examined under direct laryngoscope or micro laryngeal examination as the situation warrants. Benign non –neoplastic lesions are usually treated by excision biopsy and the biopsy results were confirmed and followed for voice improvement and prognosis. Statistical analysis of the mean age group was done.

Inclusion criteria

Inclusion criteria were histological confirmed benign lesions; age group- paediatric and adults; either sex.

Exclusion criteria

Exclusion criteria were malignant lesions of larynx.

RESULTS

This study included 50 cases of non-malignant lesions of larynx. In our study 34% of the cases fall in the age group of 20-30 years, followed by 22% in age group of 0-10 years (Table 1). The mean age group was 26 years. Males were 72% and female constituted 28% (Table 2). The hoarseness is the common symptom in 36 patients, while stridor was the predominant symptom in 14 patients (Table 3). In congenital lesion 1 each of laryngeal cyst, laryngeal web and laryngeal stenosis was diagnosed, while in inflammatory condition vocal polyp was diagnosed in 19 cases and 13 cases of recurrent respiratory papilloma were diagnosed (Table 4, Figure 1-3). The treatment modality followed were micro laryngeal excision in 40 cases, tracheostomy in 6 cases, conservative management in 3 cases and open surgical method was done in 1 case (Table 5). Cases of inflammatory aetiologies have done well with micro laryngeal surgery followed by voice rest and speech therapy and recurrent respiratory papillomatosis have shown poor results with surgery with recurrence.

Table 1: Age incidence.

S. No	Age	Number of cases	Percentage (%)
1	0-10	11	22
2	11-20	6	12
3	21-30	17	34
4	31-40	7	14
5	41-50	5	10
6	51-60	3	6
7	61-70	1	2
Total		50	

Table 2: Sex incidence.

Sex	No. of cases	Percentage (%)
Male	36	72
Female	14	28

Table 3: Symptomatology.

S. No	Symptoms	Percentage (%)
1.	Hoarseness	72
2.	Stridor	28



Figure 1: Vocal cord polyp.



Figure 2: Reinkes odema.

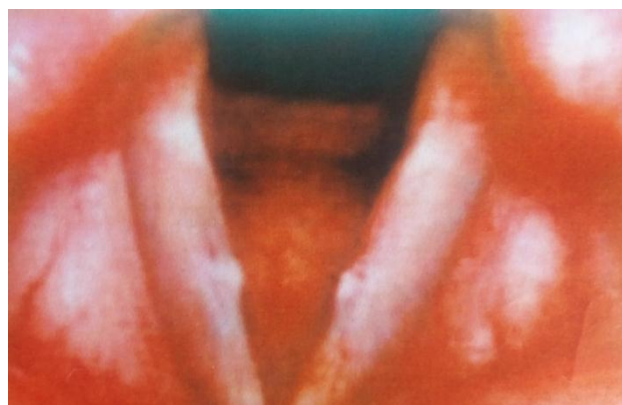


Figure 3: Vocal nodules.

Table 4: Diagnosis of lesions.

S. No	Aetiology	Lesion	No. of cases	Percentage (%)
1	Congenital	Laryngeal cyst	1	6
		Laryngeal web	1	
		Laryngeal stenosis	1	
2	Inflammatory	Vocal polyp	19	56
		Vocal nodule	6	
		Reinkes edema	2	
		Contact pachyderma	1	
3	Granulomatosis	Tuberculosis	1	2
4	Trauma	Stenosis	2	4
5	Miscellaneous	Amyloidosis	1	2
6	Papilloma	Recurrent papillomatosis	15	30

Table 5: Treatment modality.

S. No	Modalities of treatment	No. of cases	Percentage (%)
1.	Micro laryngeal excision	40	80
2.	Tracheostomy	6	12
3.	Conservative	3	6
4.	Open surgical	1	2

DISCUSSION

The majority of the patients belonged to the age group of 21–30 years in 17 cases, similar to the study by Singhal et al where males constituted 72% and females 28%.⁶

In the various benign lesions inflammatory lesions were the most common conditions noted in our study, vocal cord polyps were the observed in 19 patients, similar to the studies by various authors where vocal polyp was the most common benign laryngeal condition.⁷⁻⁹ The other inflammatory lesions were vocal nodule in 6 cases, Reinkes oedema 2 cases, contact pachyderma each 1 case. Hoarseness of voice was the most common complaint in 36 patients, in line with the findings of Batra et al.¹⁰

Surgery was the predominant treatment in our study were micro laryngeal excision was done in 40 cases, similar to the study done by Singhal et al.⁶ The most common complication we encountered in our study was bleeding per-operatively, which was controlled with packing with cotton balls. Recurrent laryngeal papillomatosis had shown poor results with surgery, with recurrences and post-operative complications like stenosis.

Preoperative voice assessment with voice rest and speech therapy was done for the lesions arising from the voice abuse. These patients after initial conservative management were posted for micro laryngeal surgery with post-operative speech therapy. Cases of inflammatory aetiology had good results post-operatively.

CONCLUSION

The non-malignant lesions of larynx are commonly encountered in the clinical practice, by the otorhinolaryngologist. Early diagnosis with effective conservative management of the inflammatory lesions in the initial stages will reduce the necessity of the surgery. Counselling, voice rehabilitation, micro laryngeal surgery offers the best modality in the management of the non-malignant lesions of larynx. The biopsy specimen should be sent for histopathological to rule out malignancy.

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Ethical approval: The study was approved by the Institutional Ethics Committee

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