



Original Article

STUDY OF LARYNGOPHARYNGEAL REFLUX DISORDERS

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ABSTRACT

A Study of 73 different cases of laryngopharyngeal reflux disorder (LPRD), with 20-60yrs age group which includes 42 females and 31 males, was done to know different types of presentations of LPRD and its predisposing factors. The study includes patients presenting with complaints of hoarseness of voice, chronic cough, burning sensation in throat and feeling of lump in throat, difficulty in swallowing and hawking sensation. Selection of cases of laryngopharyngeal reflux disorders was done by proper history taking, indirect laryngoscopy, direct laryngoscopy, video laryngoscopy and upper gastro-intestinal endoscopy. On examination laryngitis, vocal polyps, vocal nodules were identified. It was found that 60 patients presented with hoarseness of voice, burning sensation in throat and chronic cough. 13 patients presented with globus sensation. The conclusion of the study was that gastro-oesophageal reflux disorder (GERD) leads to laryngopharyngeal reflux disorder, which manifests as laryngitis, vocal polyps and vocal nodules. Cases are managed by medical and surgical treatment. Series of these cases will be presented in detail.

Keywords: laryngopharyngeal, Case report, voice

INTRODUCTION

- Laryngopharyngeal reflux is the result of retrograde flow of gastric contents to the laryngopharynx, being the major cause of laryngeal inflammation.
- **Koufman** in 2000 reported that 50 % of the patients with voice disorders have LPRD.
- -Laryngopharyngeal mucosa is 100 times more sensitive to acid & pepsin exposure than the esophageal mucosa.
- The protective barriers like -
 - Carbonate production
 - Mucosal barrier
 - Peristalsis in esophagus are absent in the laryngopharynx, making it more susceptible.
 - Acid has to traverse the esophagus to reach the upper aero digestive tract.



- -Hence, there should be dysfunction of both the sphincters in LPRD.
- That explains the coexistence of GERD & LPR in patients.
 - In 1991 Koufman showed that 3 episodes of reflux per week can result in significant damage to the larynx.
 - Most common symptoms used to diagnose GERD related laryngitis include throat clearing, cough, hoarseness, sore throat, dysphagia, globus . Previously thought to constitute spectrum of GERD, today thought to be distinct entity and should be managed differently

PREDISPOSING FACTORS

- Chronic smoking
- Alcohol and tobacco habit
- Overweight/ obesity
- Stress
- Fried, fatty, spicy food intake
- Consumption of large meals close to bedtime.
- Drinking carbonated, caffeinated or citrus based beverages.

AIM OF THE STUDY

A Study of 73 different cases of laryngopharyngeal reflux disorders (LPRD), in a time period of 2 years (sept. 2015 to sept. 2017) in age group of 20-60yrs was done in our institute. To know the different types of presentations of LPRD and its predisposing factors.

OBJECTIVES

- To study various presentations of LARYNGOPHARYNGEAL reflux disorders and commonest mode of presentation.
- To study the predisposing factors.
- To study the extra esophageal symptoms in patients with GERD.
- Management of LPRD.

MATERIALS AND METHODS

- This is a prospective study carried out at our institute.
- My study was conducted on 73 patients , both males and females
- Age group- 20-60yrs.
- Clinical evaluation by history taking and examination by indirect laryngoscopy, direct laryngoscopy, Videolaryngoscopy, UGIE.
- Blood investigations to rule out infectious diseases.
- Radiological examination when required.(C.T. Neck, Chest for extraneous lesions)
- A detailed laryngeal examination is mandatory .
- There are six conditions which can be expected to be found –
- Pseudosulcus vocalis
- Obliteration of the ventricle
- Hyperemia of vocal folds along with edema
- Posterior commissure hypertrophy
- Posterior glottic granuloma



CASE 1

42yr, female

c/o: hoarseness of voice, pain while speaking, since on and off since 3 yrs.

On VLS: Vocal nodules were found

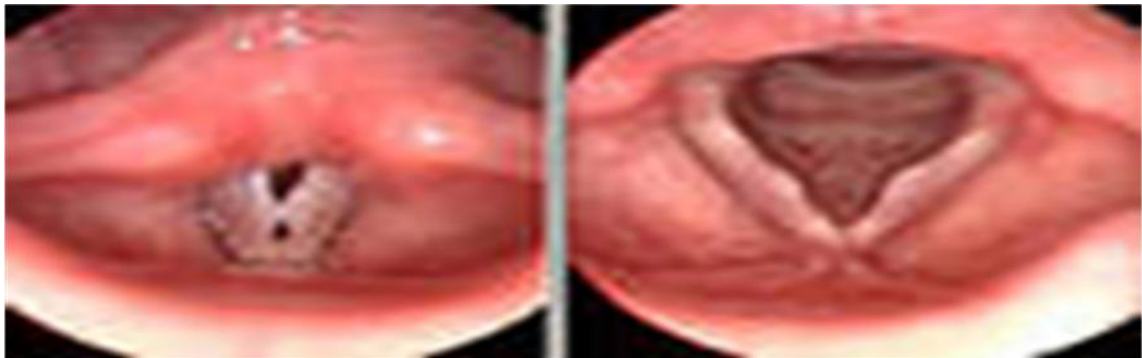


Fig:1

Fig:2

TREATMENT: medical treatment, absolute voice rest and lifestyle management.

3 month followup- responded to treatment.



Fig: 3



CASE2

44yr, female

c/o : persistent cough, globus sensation regurgitation of food, burning in throat since 5 months



Fig :1

Fig:2

VIDEOLARYNGOSCOPY ERYTHEMATOUS & OEDEMATOUS ARYTENOIDS

38yrs , female c/o: frequent throat clearing, pain on speaking on & off since 3 yrs

Endoscopic view of the sigmoid colon showing a large, polypoid, reddish lesion with a central ulceration and some debris.

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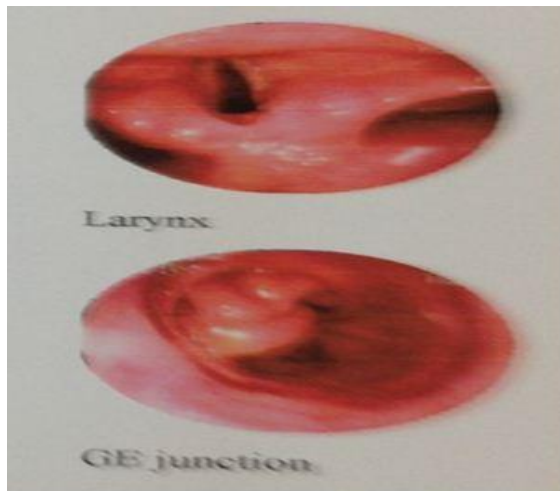


Name: 44yr/ male
c/o chronic cough ,
burning in throat

Congested epiglottis
Congested arytenoids
Erythematous &
oedematous

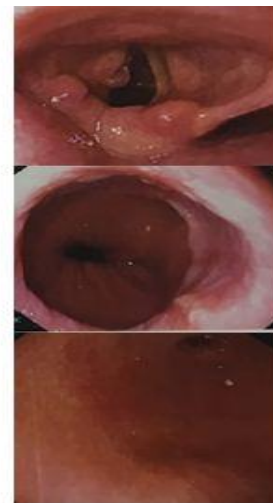


Fig: 3



Zubair Ahmed 28Y - Large Hiatus Hernia Antral Gastritis

Fig: 4



Narasaiah Ch - 75Y - H.No.215538307 Lt Vocal Cord lesion? Hiatus Hernia Severe Reflux Esophagitis Antral Erosions



65 yr old, chronic smoker. c/o: hoarseness of voice and pain in throat since 6 months

Fig: 5



Vocal polyp on left vocal cord



NAME	Age	SEX	Occupation	Sym H	Pto Cc	Mat G	O R	Logy	Examination Findings	Management	Results
RAZIYA	48	F	housewife	+	-	-	-		Chronic laryngitis	Medical	Responsive
CHANDRA	31	F	housewife	-	+	-	+		vocal polyp	Medical	not responsive
NAGAMANI	41	F	housewife	+	-	-	+		chronic laryngitis	medical & voice rest	responsive
KESHAVAMMA	54	F	Agricultural worker	+	-	-	-		erythema & oedema of VC	medical & speech therapy	not responsive
SHEKAR REDDY	24	M	student	-	+	+	-		laryngitis	voice rest	responsive
MOIN ASHRAF	52	M		-	-	+	+		laryngitis	Medical	Responsive
CHARAN REDDY	40	M	business	+	-	-	+		laryngitis	Medical	relieved
SRISAILAMMA	60	F	housewife	-	+	+	-		laryngitis	medical	responsive
JANAKAMMA	51	F	housewife	-	-	-	+		vocal polyp	medical	responsive
BRATH NAIK	45	M	labourer	+	-	+	-		vocal nodules	medical	non responsive
CHANDRAKALA	36	F	teacher	-	-	+	+		vocal nodule	Voice rest	responsive
SARA	26	F	student	+	+	+	-		laryngitis	medical	responsive
PANDURANGA	54	M	labourer	+	-	-	-		laryngitis	medical	responsive
SHASHIKALA	42	F	housewife	-	+	-	-		vocal nodule	voice rest	Responsive
QURESHI	51	M	business	-	-	-	+		simple laryngitis	medical	Responsive
ZAKIRA	32	F	housewife	+	+	+	-		layngitis	medical	Not responsive
KASHINATH	53	M	labourer	-	+	+	+		laryngitis	medical	responsive
LALAMMA	58	F	housewife	-	-	-	+		laryngitis	medical	relieved
SRINU	42	M	business	+	+	+	-		vocal polyp	Voice rest	Not responsive
UMA	50	F	hoirse wife	-	-	-	-		chronic laryngitis	medical	responsive
SUSHANTH	28	M	student	-	-	+	+		laryngitis	Medical	responsive
JYOTSNA	22	F	student	-	-	-	-		laryngitis	voice rest	relived
SAKINA	39	F	housewife	-	+	-	-		laryngitis	Medical	responsive
VENKATESH	60	M	labourer	-	-	-	+		laryngitis	medical	responsive
SRIDHAR	44	M	cook	+	+	-	+		laryngitis	medical	responsive
A. SHIVAMMA	59	F	house wife	+	+	+	-		laryngitis	medical	responsive
BONDHAMMA	51	F	house wife	-	-	+	+		laryngitis	medical	responsive
CHANDI	44	F	Housewife	+	-	-	-		vocal nodule	voice rest	responsive
ANJANEYULU	58	F	housewife	+	-	+	+		laryngitis	medical	relieved
GALLAMMA	51	F	farmer	-	-	+	+		laryngitis	medical	responsive
CHANDRAKALA	41	F	teacher	-	+	+	-		vocal polyp	medical	not responsive
LALAPPA	60	M	student	-	+	+	+		simple laryngitis	medical	responsive
GATTAMMA	43	F	teacher	-	-	-	-		erythematous arytenoids	medical	relieved
SANGEETHA	38	F	student	+	-	+	-		laryngitis	medical	relieved
BAIRAJ	41	M	waiter	+	-	-	+		laryngitis	medical	relieved
ASHA RANI	30	F	engineer	-	-	-	-		laryngitis	medical	responsive
SARA	42	F	singer	+	+	+	-		vocal polyp	voice rest	not responsive
CHIRANJEEVI	52	M	student	-	-	-	-		laryngitis	medical, voice rest	responsive
RAJU	32	M	farmer	-	+	-	+		laryngitis	medical	responsive
SWATI	31	F	teacher	+	+	+			laryngitis		relieved



sex	No.of patients	%
Male	31	42.5%
female	42	57.5%
total	73	100%

age	No of patients	%
20-30	10	13.6%
31-40	18	24.6%
41-50	20	27.3%
51-60	25	34.2%



DISCUSSION

My study of LPRD was conducted on 73 patients, belonging to the age group 20-60yrs, who presented to the ENT OPD, at S.V.S. Medical College & Hospital

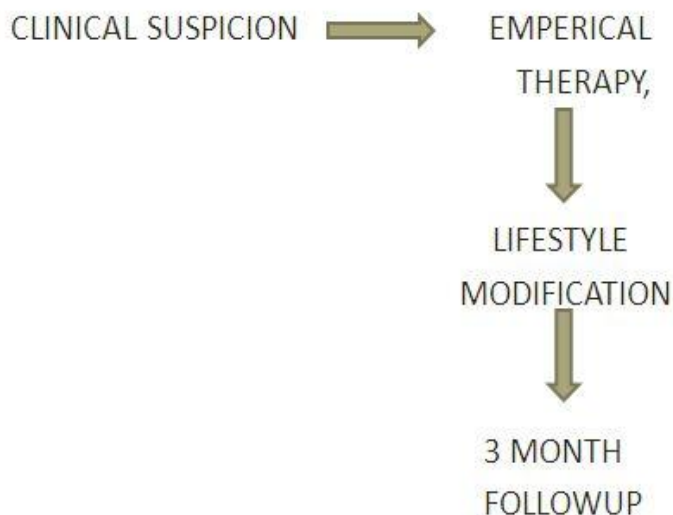
- Amongst the 73 patients, 42 were females and 31 were males.
- Patients were selected based on complaints of hoarseness of voice, chronic cough, globus sensation, regurgitation, pain while speaking

-On indirect laryngoscopic examination and videolaryngoscopy, 51 patients were found to have erythematous and oedematous larynx (chronic simple laryngitis), 14 patients with vocal polyps and 8 patients with vocal nodules.

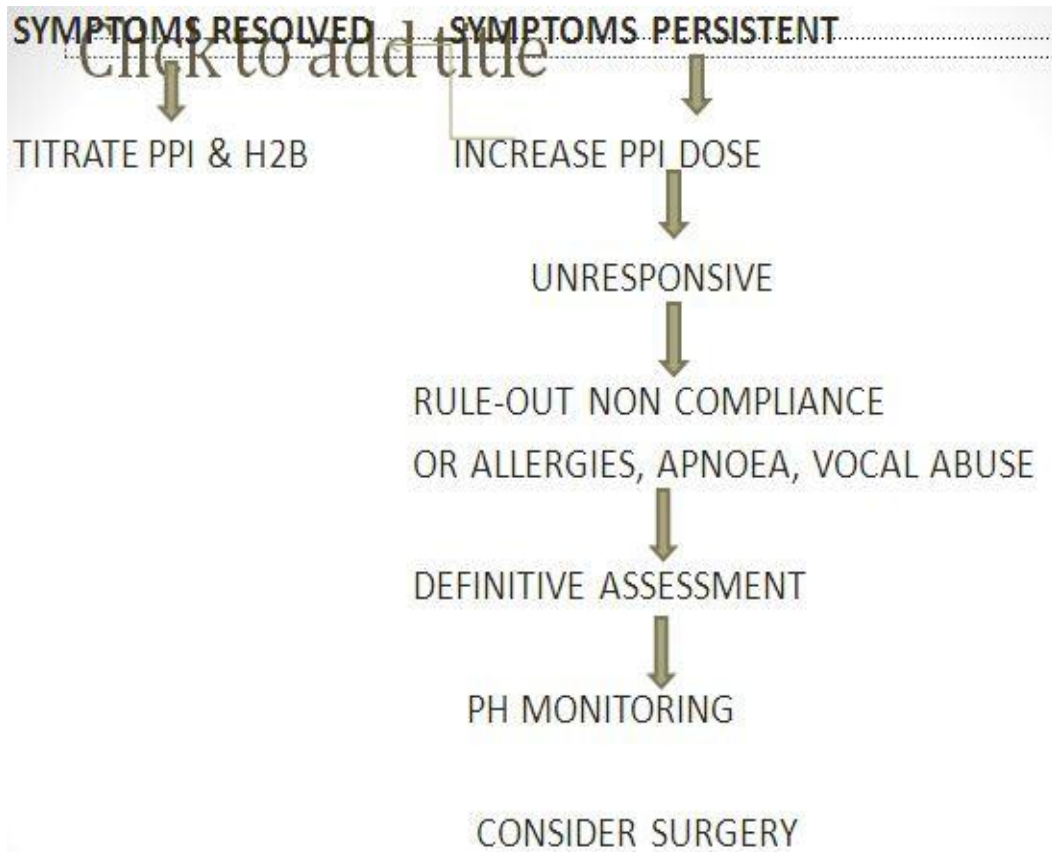
- patients were treated following the treatment algorithm and advised absolute voice rest with lifestyle modification.

- Of all the patients, 70% responded to medical treatment
- On 20 % patients microlaryngeal surgery was conducted.

TREATMENT ALGORITHM



Emperical therapy: proton pump inhibitors & histamine receptor blockers



Proton pump inhibitors for at least 6 weeks is the gold standard treatment

LIFESTYLE CHANGES:

-Elevating the head end of the bed by 6-8 inches

-Quit tobacco chewing and smoking & alcohol intake.

- Maintain ideal weight.
- Avoid lying down for 3hrs after eating.
- Avoid late night eating.
- Avoid wearing tight clothing.
- Limit intake caffeinated beverages, chocolates, mints, citrus fruits, tomato based products, spicy, fatty foods.



Presenting complaint	No.of patients	%
Hoarseness of voice	27	34.2%
Hawking/throat clearing	8	10.9%
Chronic cough	9	12.3%
regurgitation	6	8.2%
heartburn	5	6.8%
Pain on swallowing	5	6.8%
Lump in throat	13	17.8%

No.	Pathology	No.of patients	%
1.	Chronic simple laryngitis	51	69.8%
2.	Vocal nodules	8	10.9%
3.	Vocal polyps	14	19%



No. of patients responded to medical treatment	70%
No. of patients did not respond to medical treatment, required surgical management	30%

CONCLUSION

In my study it was found that:

- Hoarseness was the most common presenting complaints and Laryngitis was the most common examination finding.
- Amongst all the patients females were commonly affected compared to males.
- 80% of patients responded to medical treatment.
- In 20% of patients, microlaryngeal surgery was performed for vocal polyp and vocal nodules.
- It was found that LPRD requires double dose long term Proton Pump Inhibitor therapy compared to GERD.
- ALL PATIENTS REQUIRE LIFESTYLE MODIFICATION
- LPRD Is a coexistent condition of GERD

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