

**CLINICAL FEATURES AND TREATMENT STRATEGIES OF
LARYNGOPHARYNGEAL REFLUX IN ENT PRACTICE**

Odilov Javohir Azamatovich

*Department of Otorhinolaryngology No. 1, Samarkand State Medical University, 2nd
year clinical supervisors*

Xudoyberdiyev Yorqin Ilhom o'g'li

*Department of Otorhinolaryngology No. 1, Samarkand State Medical University, 2nd
year clinical supervisors*

Muradova Nigina Shuxrat qizi

*Department of Otorhinolaryngology No. 1, Samarkand State Medical University, 2nd
year clinical supervisors*

Scientific supervisor: Davronova G.B

*Department of Otorhinolaryngology No. 1, Samarkand State Medical University
PhD, associate professor.*

Annotation: *Laryngopharyngeal reflux (LPR) is a common but often underdiagnosed condition in otorhinolaryngology characterized by the backflow of gastric contents into the larynx and pharynx, leading to chronic irritation of the upper airway mucosa. Unlike gastroesophageal reflux disease (GERD), LPR typically occurs without heartburn and primarily manifests with extraesophageal symptoms such as hoarseness, chronic throat clearing, cough, globus sensation, and postnasal drip. The condition affects a significant portion of patients seen in ENT clinics and has been associated with laryngeal inflammation, vocal fold lesions, and chronic rhinosinusitis. Due to its nonspecific presentation and overlap with other laryngeal and respiratory disorders, LPR poses diagnostic and therapeutic challenges. Advances in diagnostic modalities, including pH impedance monitoring and flexible laryngoscopy, have improved clinical recognition, while novel treatment strategies combining medical therapy, lifestyle modification, and dietary interventions have enhanced patient outcomes.*

Keywords: *Laryngopharyngeal reflux, reflux symptom index, reflux finding score, proton pump inhibitors, laryngoscopy, ENT disorders, upper airway inflammation.*

Objective: *The objective of this study is to evaluate the clinical manifestations, diagnostic approaches, and therapeutic outcomes of laryngopharyngeal reflux in ENT*



practice, emphasizing the role of comprehensive management strategies in improving symptom control and laryngeal health.

Materials and Methods: This study included 150 patients aged 18–70 years presenting with chronic throat symptoms, including hoarseness, persistent cough, and throat clearing, at tertiary ENT clinics from 2021 to 2025. Each patient underwent a detailed clinical assessment, including symptom evaluation using the Reflux Symptom Index (RSI) and endoscopic grading with the Reflux Finding Score (RFS). Diagnostic confirmation was established by dual-probe 24-hour pH impedance monitoring in selected cases. Patients were divided into two treatment groups: Group A received standard proton pump inhibitor (PPI) therapy twice daily for three months along with lifestyle modification, while Group B received combined PPI therapy and a plant-based, low-acid diet. Follow-up evaluations were performed at 6 and 12 weeks, including symptom reassessment and repeat laryngoscopic examination. Statistical analysis compared pre- and post-treatment RSI and RFS values to determine therapeutic efficacy.

Results: The majority of patients presented with hoarseness (65%), chronic throat clearing (58%), globus sensation (45%), and dry cough (40%). Laryngoscopic findings revealed interarytenoid erythema (60%), posterior commissure hypertrophy (50%), and vocal fold edema (35%). Mean baseline RSI and RFS scores were significantly elevated in all patients, indicating moderate to severe reflux-related inflammation. Following treatment, Group B demonstrated a greater reduction in RSI and RFS scores (average 70% improvement) compared to Group A (55% improvement). Patients adhering to lifestyle and dietary modifications showed faster symptom resolution and lower relapse rates at three months. No serious adverse events were reported. The combination of pharmacological therapy with diet and behavioral changes proved more effective in long-term symptom control.

Discussion: The study highlights that LPR is a multifactorial disorder frequently misdiagnosed as allergic rhinitis, chronic laryngitis, or functional dysphonia. The pathophysiology involves exposure of the laryngeal mucosa to acidic and peptic contents, resulting in inflammation and mucosal edema. Accurate diagnosis relies on symptom-based tools such as RSI and endoscopic evaluation with RFS, supported by pH monitoring in ambiguous cases. The traditional approach of high-dose PPI therapy has been challenged by emerging evidence supporting lifestyle and dietary interventions as key components of management. A low-acid, plant-based diet, weight reduction, head elevation during sleep, and avoidance of reflux-triggering foods



significantly enhance treatment efficacy. Multidisciplinary collaboration between otolaryngologists, gastroenterologists, and speech therapists is essential for comprehensive care, particularly in refractory cases. Early recognition and personalized therapy can prevent chronic laryngeal injury and improve voice quality and airway comfort.

Conclusion: Laryngopharyngeal reflux represents a prevalent and clinically significant condition in ENT practice with diverse manifestations and diagnostic complexities. The combination of thorough clinical evaluation, targeted diagnostic tools, and multimodal treatment yields the best therapeutic outcomes. Proton pump inhibitors remain the cornerstone of pharmacologic therapy; however, the integration of lifestyle modification and dietary management substantially improves long-term control and reduces recurrence. Early detection and individualized treatment strategies are crucial in preventing chronic laryngeal damage, optimizing vocal performance, and enhancing overall patient quality of life.

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