

Brief Research

Corresponding author

Ziya Salturk, MD

Specialist

Okmeydanı Training and Research Hospital, ENT Clinic

Istanbul, Turkey

E-mail: ziyasalturk@gmail.com

Volume 2 : Issue 5

Article Ref. #: 1000OTLOJ2132

Article History

Received: August 27th, 2016

Accepted: October 26th, 2016

Published: October 27th, 2016

Citation

Aydoğdu İ, Aydoğdu Z, Salturk Z, Uyar Y. The assessment of gastroesophageal and gastropharyngeal reflux prevalence after total laryngectomy. *Otolaryngol Open J.* 2016; 2(5): 156-157. doi: [10.17140/OTLOJ-2-132](https://doi.org/10.17140/OTLOJ-2-132)

Copyright

©2016 Salturk Z. This is an open access article distributed under the Creative Commons Attribution 4.0 International License (CC BY 4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

The Assessment of Gastroesophageal and Gastropharyngeal Reflux Prevalence After Total Laryngectomy

İmran Aydoğdu, MD; Zeynep Aydoğdu, MD; Ziya Salturk, MD^{*}; Yavuz Uyar, MD

Okmeydanı Training and Research Hospital, ENT Clinic, Istanbul, Turkey

ABSTRACT

Objective: The aim of this study is to detect prevalence of glomerular filtration rate (GFR) in total laryngectomy patients.

Method: Thirty-eight healthy patients who underwent total laryngectomy and followed at least 6 months participated to study. Patients were asked to complete gastroesophageal reflux disease questionnaire (GerdQ) and examined with flexible laryngoscopy.

Result: Twenty-seven of 38 (71%) patients had scores over 8 and diagnosed as gastroesophageal reflux (GER). Eleven patients had scores lower than 8.

Conclusion: Our study revealed that GER and GFR incidence are higher in total laryngectomy patients.

KEYWORDS: Laryngectomy; Gastropharyngeal reflux (GFR); Gastroesophageal reflux (GER).

ABBREVIATIONS: GFR: Glomerular Filtration Rate; GerdQ: Gastroesophageal reflux disease questionnaire; GER: Gastroesophageal reflux.

INTRODUCTION

Gastroesophageal reflux (GER) is a condition in which gastrointestinal content passes through upper esophageal sphincter and reaches esophagus. This situation is called GER disease when causes signs and symptoms.¹ Gastropharyngeal reflux (GFR) is an advanced situation that gastrointestinal content reaches pharyngeal mucosa passing through upper esophageal sphincter.² It has been proved that GFR is associated with numerous otorhinolaryngological diseases including otitis media with effusion, laryngeal granuloma and subglottic stenosis. It is accused of being one of the etiological factors in esophageal carcinoma.^{3,4} GFR usually exhibits itself without gastrointestinal symptoms.⁵ It should be considered in chronic otorhinolaryngological problems.⁶

Although its importance has been accepted in otorhinolaryngological problems it was not studied in detail at laryngectomized patients. GFR may cause pharyngocutaneous fistula and voice problems in laryngectomized patients.⁷ We aimed to study prevalence of GFR in total laryngectomy patients.

METHODS

We evaluated 38 healthy patients who underwent total laryngectomy and followed at least 6 months. All participants were informed of the study procedures and signed a consent form. Patients were asked to complete Gastroesophageal reflux disease questionnaire (GerdQ) and examined with flexible laryngoscopy. Statistical analysis of the data was conducted using SPSS version 17.0. After analysis, data were presented using descriptive statistical methods (mean±standard deviation). Student *t*-tests were used for comparison data of pre-operation and data of post-operation.

RESULTS

GerdQ has high sensitivity and specificity in GER patients and scores over 8 was accepted as GER.⁹ Thirty-four males and 4 females were included in the study. Mean age of the patients were 59.8±73.27 of 38 (71%) patients had scores over 8 and diagnosed as GER. Eleven patients had scores lower than 8. There was a statistically significant difference between patients with higher scores and lower scores than 8 ($p=0.024$).

CONCLUSION

Our study revealed that GER and GFR incidence are higher in total laryngectomy patients. This can be related to physiological changes which were caused by surgery. Diagnosis and treatment of these patients are important because it negatively affects quality-of-life (QoL). Due to above reported facts we recommend prophylactic proton pump inhibitor use after total laryngectomy.

CONFLICTS OF INTEREST

The authors declare that they have no conflicts of interest.

REFERENCES

1. El-Serag HB, Graham DY, Satia JA, Rabeneck L. Obesity is an independent risk factor for GERD symptoms and erosive esophagitis. *Am J Gastroenterol.* 2005; 100: 1243-1250. doi: [10.1111/j.1572-0241.2005.41703.x](https://doi.org/10.1111/j.1572-0241.2005.41703.x)
2. Ulualp SO, Toohill RJ. Laryngopharyngeal reflux: State of the art diagnosis and treatment. *Otolaryngol Clin North Am.* 2000; 33: 785-801.
3. Koufman J, Sataloff RT, Toohill R. Laryngopharyngeal reflux: Consensus conference report. *J Voice.* 1996; 10: 215-216. doi: [10.1016/S0892-1997\(96\)80001-4](https://doi.org/10.1016/S0892-1997(96)80001-4)
4. Freije JE, Beatty TW, Campbell BH, Woodson BT, Schultz CJ, Toohill RJ. Carcinoma of the larynx in patients with gastroesophageal reflux. *Am J Otolaryngol.* 1996; 17: 386-390. doi: [10.1016/S0196-0709\(96\)90071-X](https://doi.org/10.1016/S0196-0709(96)90071-X)
5. Burton DM, Pransky SM, Kearns DB, Katz RM, Seid AB. Pediatric airway manifestations of gastroesophageal reflux. *Ann Otol Rhinol Laryngol.* 1992; 101: 742-749. doi: [10.1177/000348949210100905](https://doi.org/10.1177/000348949210100905)
6. Rival R, Wong R, Mendelsohn M, Rosgen S, Goldberg M, Freeman J. Role of gastroesophageal reflux disease in patients with cervical symptoms. *Otolaryngol Head Neck Surg.* 1995; 113: 364-369. doi: [10.1016/S0194-5998\(95\)70069-2](https://doi.org/10.1016/S0194-5998(95)70069-2)
7. Seikaly H, Park P. Gastroesophageal reflux prophylaxis decreases the incidence of pharyngocutaneous fistula after total laryngectomy. *Laryngoscope.* 1995; 105: 1220-1222. doi: [10.1288/00005537-199511000-00015](https://doi.org/10.1288/00005537-199511000-00015)
8. Dent J, Vakil N, Jones R, et al. Accuracy of the diagnosis of GORD by questionnaire, physicians and a trial of proton pump inhibitor treatment: The Diamond Study. *Gut.* 2010; 59: 714-721. doi: [10.1136/gut.2009.200063](https://doi.org/10.1136/gut.2009.200063)
9. Jonasson C, Wernersson B, Hoff DA, Hatlebakk JG. Validation of the GerdQ questionnaire for the diagnosis of gastro-oesophageal reflux disease. *Aliment Pharmacol Ther.* 2013; 37: 564-572. doi: [10.1111/apt.12204](https://doi.org/10.1111/apt.12204)