

# Rhinitis in Laryngectomy Patients

Amelia Kate Ramsey, MD<sup>1</sup>; Alex Darras, BS<sup>1</sup>; Camron M. Davies, MD<sup>1,3</sup>; Abby Tappan, MS<sup>1</sup>; John Gleysteen, MD<sup>1</sup>; E. Ritter Sansoni, MD<sup>1</sup>

<sup>1</sup>Department of Otolaryngology – Head and Neck Surgery, University of Tennessee Health Science Center, Memphis, TN

<sup>2</sup>College of Medicine, University of Tennessee Health Science Center, Memphis, TN

<sup>3</sup>Department of Otolaryngology - Head and Neck Surgery, Loma Linda University, Loma Linda, CA

## Introduction

This study evaluates the sinonasal complaints in patients that have undergone laryngectomy and determines if any associated factors contribute to worsening symptom complaints including radiation therapy, chemotherapy, surgery, and if any objective evidence of sinusitis on post operative imaging for these patients.

## Background

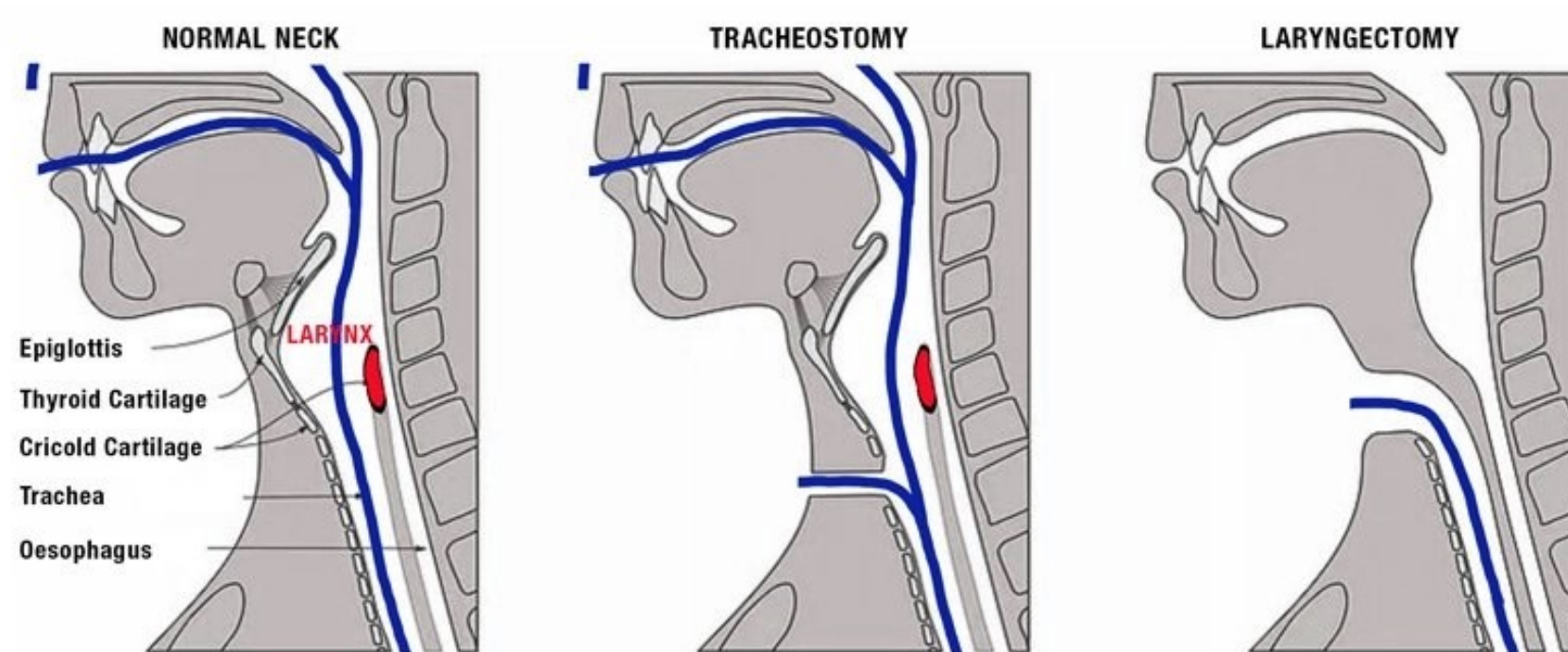
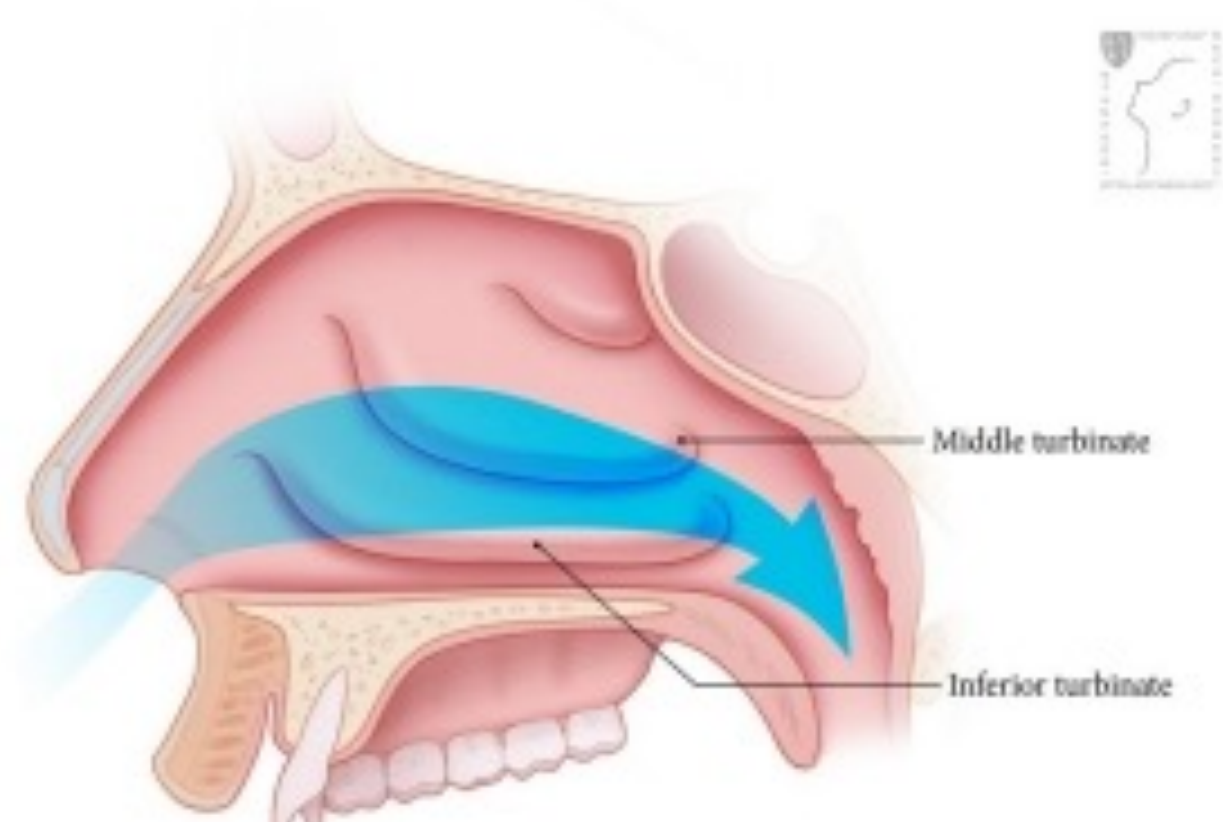


Figure 1. Nasal Airflow changes in

Following laryngectomy, patients no longer experience nasal airflow changing the nasal mucosa's secretory function and appearance.<sup>1</sup> Patient's post-laryngectomy scored worse on symptoms of runny nose, nasal congestion, and nasal itching compared to their non-laryngectomy cohorts.<sup>2</sup>



## Methods

### Design:

- A retrospective chart review was performed of the UTHSC laryngectomy database.

### Inclusion Criteria:

- Patients  $\geq 18$  year of age that have had a laryngectomy between 2015 and May 2022.

### Data Collected:

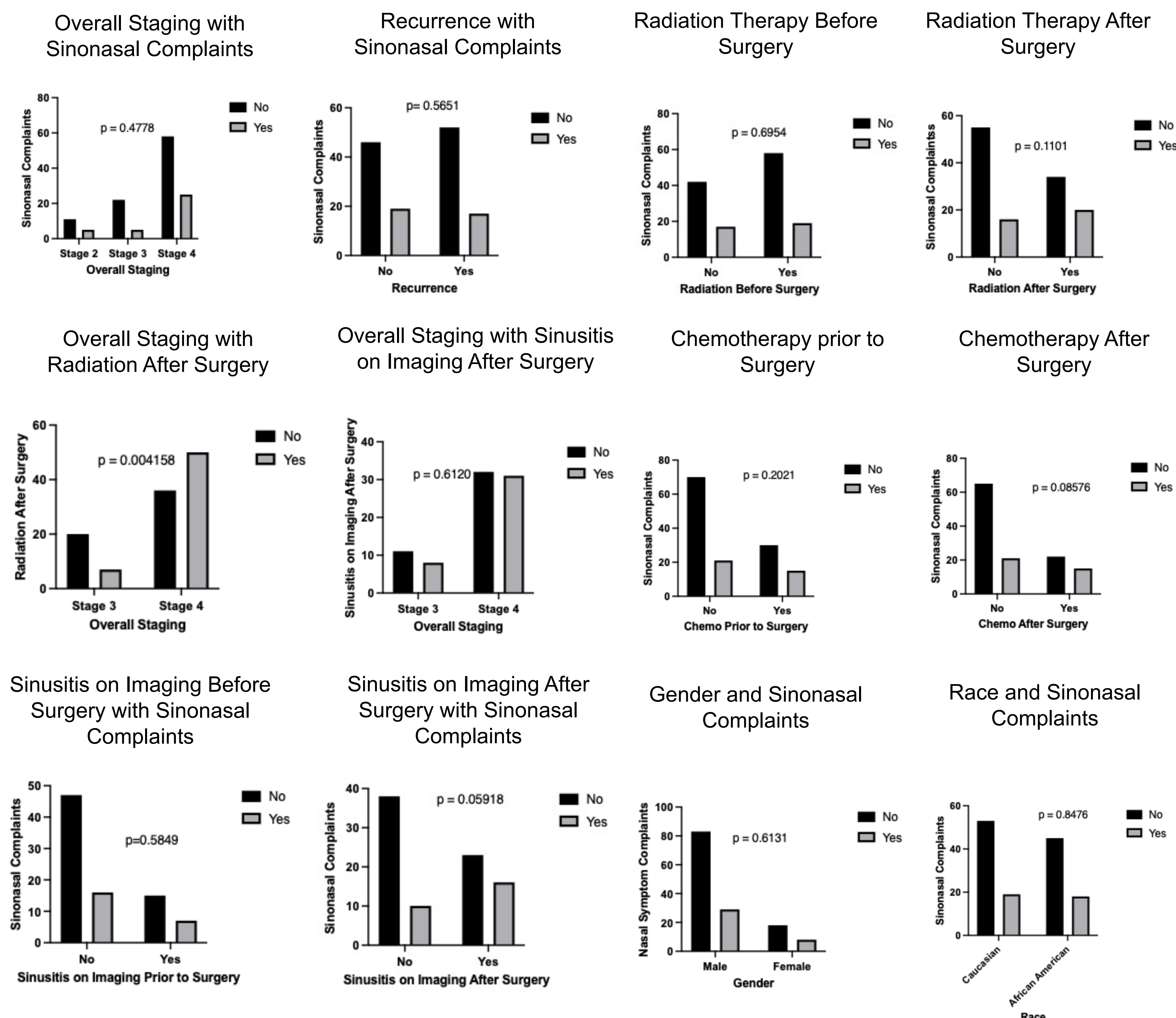
- Evaluated the following characteristics: Gender,

race, date of laryngectomy, overall staging, recurrence, chemotherapy before or after surgery, radiation before or after surgery, complaints of sinonasal symptoms after surgery, and sinusitis on imaging before or after surgery.

### Analysis:

- 167 patients were included in chart review. Prism-9 software was used for creation of contingency tables. Fisher's Exact and Chi-square Analysis were performed.

## Results



## Conclusions

Patients undergoing laryngectomy have a variety of impacts to their overall nasal function. Chemotherapy and Radiation contributes to a change in sinonasal mucosa in patients with late stage disease. Overall, later stage disease patients are more likely to undergo these therapies and have worsening sinonasal complaints. Further studies are needed to determine best treatment options for symptomatic control in this patient population.

## Acknowledgements

The data used in this study is from the UTHSC Database of Laryngectomy patients that is continually updated. These are patients that have undergone laryngectomy across 3 hospital systems in Memphis, TN.

## References

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