Distinct Epidemiologic Characteristics of Oral Tongue Cancer Patients
Ryan J. Li, MD, Wayne M. Koch, MD, Carole Fakhry, MD, MPH, Christine G. Gourin, MD, MPH
Department of Otolaryngology- Head and Neck Surgery, Johns Hopkins University

ABSTRACT
Oral tongue cancer may have a distinct epidemiological profile from other mucosal neoplasms of the oral cavity. Recent studies have noticed an increasing incidence of oral tongue cancer despite an overall decrease in new oral cavity cancer diagnoses. Epidemiologic data suggests that oral tongue cancer patients are younger, and more often female and white. We sought to further define the demographic characteristics associated with oral tongue cancer to determine if unique characteristics exist compared to other oral cavity cancers.

RESULTS
A total 1,688 cases met study criteria. The majority of patients were male (P=0.0001) and white (P=0.011). The oral tongue was the most common subsite for oral cancer, with 719 (42.6%) patients, followed by floor of mouth (27.7%), other (18.1%), gum (9.2%), and lip (2.4%). Patients with oral tongue cancer were more likely to be younger than 40 years of age, were less likely to be black, had lower case complexity and a healthier baseline status. These findings confirm the evidence from prior studies suggesting that oral tongue cancer has a distinct epidemiologic pattern from other oral cavity tumor sites, which may reflect underlying differences in pathogenesis and behavior.

METHODS AND MATERIALS
A cross-sectional analysis of patients with a diagnosis of oral cancer was performed using hospital discharge data from nonfederal acute care hospitals in Maryland collected by the Maryland Health Service Cost Review Commission (HSCRC). The International Classification of Disease, 9th revision (ICD-9) codes for malignant neoplasm of the lip (141.0, 140.1, 140.3, 140.4, 140.6, 140.8, 140.9), oral tongue (141.1, 141.2, 141.3, 141.4, 141.9), gum (143.0, 143.1, 143.8, 143.9), floor of mouth (144.0, 144.1, 144.6, 144.9) and other unspecified parts of mouth (145.0, 145.1, 145.2, 145.5, 145.6, 154.8, 154.9, and 170.1) were used for sorting. Independent variables included were age, sex, race, APR-DRG case complexity score (1-4), APR-DRG mortality risk score (1-4), length of stay, payer source (commercial, health maintenance organization [HMO], Medicare, Medicaid, or self-pay), procedure severity [minor versus major], and hospital teaching status.

CONCLUSIONS
The racial and socioeconomic qualities of oral tongue cancer patients differ significantly from other oral cancers. This younger, healthier subgroup of oral cancer patients demonstrates a distinct population at risk for cancer.

REFERENCES

CONTACT
Ryan J. Li, MD
Email: rili@jhmi.edu
Phone: 410-955-1922