Introduction

In the United States, cancer of the oral cavity and oropharynx is diagnosed in 35,000 individuals and is responsible for approximately 7500 deaths annually. Several histopathologic findings are associated with head and neck squamous cell carcinoma (SCCA) including those found in the oral cavity and oropharynx, however few studies investigating a relationship between these findings and overall survival outcomes exist. Knowledge of indicators of poorer outcomes may help stratify treatment methods and lead to improvements in patient survival. We, therefore, intend to identify indicators that influence recurrence and overall survival in oral cavity and oropharyngeal SCCA.

Materials and Methods

Medical records of 71 patients who were diagnosed with oral cavity or oropharyngeal SCCA and underwent surgical resection, chemo/XRT, or both from 2003 to 2008 were available for review. Data was collected including stage at presentation, presence of lymphovascular invasion, perineural invasion, and extracapsular spread. Additionally, time to recurrence and overall survival were investigated. This data was compared by means of both univariate and multivariate analysis through the use of Kaplan Meier estimates of survival function using log rank to test for statistical significance.

Results

Patient population consisted of 55 men (77.5%) and 16 women (22.5%) with a mean age of 58.7 years. Perineural invasion, extracapsular spread and stage at presentation were not significantly associated with overall survival or time to recurrence. In contrast, overall survival and median time to recurrence were significantly decreased ($P < 0.05$) in individuals whose pathology demonstrated lymphovascular invasion, regardless of tumor stage ($P < 0.0001$).

Discussion

Although lymphovascular invasion, perineural invasion and extracapsular spread are known adverse prognostic indicators in head and neck SCCA, lymphovascular invasion appears to have a predominant impact on outcome. Recent literature has shown the negative impact of lymphovascular invasion on overall survival in oral cavity SCCA. Our results support these findings and suggest that lymphovascular invasion is an important predictor of clinical outcomes in oropharyngeal SCCA as well.

Conclusions

Tumors with known lymphovascular invasion may require more aggressive treatment, and awareness of this provides an additional counseling tool when discussing prognosis with patients. A statement indicating presence or absence of prognostic indicators should be included on every pathology report. Further studies with a larger cohort of patients would improve the reliability of these findings.

References
