INTRODUCTION

The oral tongue is the most common site for oral cavity cancer and squamous cell carcinoma (SCC). The oral tongue is described as the “horny external surface of the oral cavity” and is responsible for over 90% of cases with an estimated incidence of 3.0/100,000 in the United States.1,2 Males with a history of tobacco and alcohol use are at greatest risk and commonly present with early stage, T1 or T2, lesions.

METHODS AND DESCRIPTION OF PROCEDURE

Patients with oral tongue cancer underwent partial glossectomy using a new surgical technique by the senior author from February 2011 to July 2013 at a tertiary care medical center. A retrospective comparison cohort was selected from prior patients of the department with age, sex, and stage matching. Anterior, posterior, and medial pathology margins were compared between the two groups. Mean values were compared with the student’s t-test for normally distributed variables, and median values were compared with the Wilcoxon-Mann-Whitney test for variables which were not normally distributed. The horizontal mattress technique for partial glossectomy is described.

RESULTS

Ten patients underwent partial glossectomy with the new technique. The mean medial pathology margin was significantly greater in the new technique group (1.40 cm, 0.88 cm, p<0.05) (new technique, conventional technique, p-value). There were no significant differences in the median anterior margin (1.10 cm, 1.25 cm, p=0.79), mean posterior margin (1.45 cm, 1.31 cm, p=0.15), median age (60.8 yrs, 61.5 yrs, p=0.67), tumor size (1.91 cm, 1.71 cm, p=0.47), or tumor depth of invasion (0.60 cm, 0.80 cm, p=0.73).

DISCUSSION

Adequate tumor resection is important for local disease control of oral tongue SCCa. Wide local excision remains the primary treatment modality for this subsite as 5-year disease specific survival is significantly reduced (59% vs 43%) when pathologic clear margins are not achieved.4 Our technique for partial glossectomy for early oral tongue cancers describes a simple approach to maintain consistency of specimen margins and improve measurement accuracy. Tissue splaying and margin shrinkage are reduced as the horizontal mattress sutures preserve normal anatomic integrity.

CONCLUSIONS

The new surgical technique using horizontal mattress sutures for dissection guidance and specimen orientation gave greater surgical and pathology margins. This study is limited by the retrospective nature of the comparison group. A prospective trial should be undertaken to confirm these results. Definitive wide margins may also allow patients to avoid unnecessary postoperative radiation treatment to the primary site which can lead to significant morbidity.

REFERENCES