INTRODUCTION

- Neck dissection (ND) is a highly effective diagnostic and therapeutic procedure to assess and treat metastases in regional lymph node basins.
- Elective neck dissection (END) – performed for staging purposes in clinically negative necks (cN0) with oral cavity cancer has been shown to improve survival for oral cavity cancer
- Therapeutic neck dissection – employed in the curative setting to remove metastatic disease to the neck. A lymph node (LN) count of at least 18 has been associated with improved survival, regardless of number of metastases.
- Lymph node yield (LNY) of 18 has been proposed as a quality metric in head and neck surgery.
- While it is increasingly recognized that lymph node yields reflect the adequacy of neck dissection, trends in LNY over time have not been previously investigated.

Objective: To evaluate trends in LNY neck dissections for oral cavity carcinoma in the US

METHODS

- Data obtained from Surveillance, Epidemiology, and End Results (SEER 18) database. Inclusion criteria included diagnosis of malignant oral cavity cancer (tongue and floor of mouth) from January 1, 2006 – December 31, 2016. Cases were excluded due to inadequate county level information. Patients with AJCC 6th edition Stages 1-4a who underwent surgery were included.

RESULTS

- The median LNY among 8580 patients in the sample was 25 LNs (Interquartile range 14-39).
- Lymph node yield statistically increased over time from 22 LNs in 2004 to 27 in 2014 (p < 0.0001).
- In contrast, there was no change in the median number of positive LNs during the period (2 in 2004 and 2014). There was no significant difference in lymph node yield based on sex, age, insurance status, or relative location to a metropolitan center.
- After adjusting for patient age, sex, race, marital status, regional income and percent current smokers, tumor site and TNM stage, LNY was associated with improved survival.
- Cox-regression for survival analysis

DISCUSSION

- Lymph Node Yield of neck dissections for oral cavity carcinoma has increased from 2004-2014.
- Increased Lymph node yield is associated with a survival benefit
  - Perhaps improved survival due to removal of micrometastases
  - Other forms of treatment not assessed which may contribute to survival
    - Chemotherapy, radiation
  - Unclear contribution of various neck levels
    - Seer data does not stratify by level or unilateral vs bilateral
- Many oral cavity tumors invade midline and thus may need bilateral neck dissections. This may falsely elevate lymph node yield

SELECTED REFERENCES


