EVALUATION OF THE RATIONALE FOR LINGUAL TONSILLECTOMY IN THE DIAGNOSTIC WORK-UP OF HEAD AND NECK SQAMOUS CELL CARCINOMA OF UNKNOWN PRIMARY: IMPACT OF IDENTIFYING SMALL TONGUE BASE PRIMARY TUMOURS ON IMRT CHARACTERISTICS AND CLINICAL OUTCOMES
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Purpose: Transoral robotic surgery (TORS) and laser microsurgery (TLM) have been utilized to perform lingual tonsillectomy in the diagnostic work-up of head and neck squamous cell carcinoma of unknown primary (CUP). We evaluated the potential therapeutic value for this approach by comparing differences in radiotherapy characteristics and clinical outcomes for CUP and small base-of-tongue (BOT) tumours.

Methods and Materials: Retrospective review of BOT (T1N1-3M0) and CUP (T0N1-3M0) patients treated with intensity-modulated radiotherapy (IMRT) at our institution between 2005-2013 with known p16 immunohistochemistry status. The IMRT characteristics, mucosal (CTV-T) and nodal (CTV-N) clinical target volumes, and organ at risk (OAR) dosimetry, were obtained. Local (LC), regional (RC), distant control (DC), cause-specific (CSS), overall survival (OS) and RTOG Grade ≥ 3 late toxicity (LT) were analyzed.

Results: Fifty-four BOT (93% p16-positive) and 61 CUP (62% p16-positive) patients were identified. Respective N classifications included: N1 (15 versus 8%), N2a (17 versus 31%), N2b (28 versus 36%), N2c (24 versus 8%) and N3 (17 versus 16%). High-dose CTV-T was prescribed in 100% of BOT and 38% of CUP patients (p < 0.001). Low-dose CTV-T included mucosal sites outside of the oropharynx (i.e., nasopharynx, hypopharynx, and/or larynx) in 0% of BOT and 26% of CUP patients (p < 0.001), with greater volume of low-dose CTV-T in CUP than BOT patients (113 ± 8 versus 84 ± 6 cm³, p = 0.001). Bilateral neck irradiation was used in 53/54 (98%) BOT and 46/61 (75%) CUP patients (p < 0.001). OAR dosimetry demonstrated that BOT patients received higher maximum dose (Dmax) to the mandible (71.4 ± 4.5 versus 67.2 ± 6.7 Gy, p = 0.001), with a trend toward higher laryngeal Dmax (66.1 ± 7.6 versus 62.8 ± 9.3 Gy, p = 0.059) and lower average dose (Dmean) to the larynx (43.8 ± 7.5 versus 47.1 ± 10.4 Gy, p = 0.01). There were no significant differences in Dmax to inferior constrictor muscle or esophagus, and Dmean to mandible, inferior constrictor muscle or esophagus (p > 0.05 for all). The three-year LC, RC, CSS and OS for p16-positive BOT versus CUP patients were 100% versus 95%, 98% versus 100%, 94% versus 91%, 94% versus 93%, 88% versus 91%, respectively, while in p16-negative BOT versus CUP patients were 75% versus 100%, 75% versus 82%, 100% versus 85%, 75% versus 85%, 50% versus 74%, respectively (p > 0.05 for all). Grade 3 LT recorded in two (3%) CUP (neck fibrosis) and five (9%) BOT patients (two neck fibrosis, two osteoradionecrosis, and one dysphagia).

Conclusions: Patients treated with IMRT for CUP or small BOT tumours had similar clinical outcomes. Performing TORS or TLM to identify small BOT tumours would lead to a reduction in the volume of low-dose CTV-T, with more frequent use of high-dose CTV-T and bilateral neck irradiation. Further studies are required to investigate the potential impact of these volumetric and dosimetric differences on quality-of-life and functional outcomes.

 INFORMATION NEEDS OF PATIENTS DIAGNOSED WITH HEAD AND NECK CANCER UNDERGOING RADIATION THERAPY: A SURVEY OF PATIENT SATISFACTION
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Purpose: A comprehensive revised patient education booklet, for patients diagnosed with head and neck cancer, was developed at our centre. This revised education booklet consolidates information from various sources in a single document. The objectives of this study are: 1) to identify patients' reported informational needs and areas for improvement in patient education; and 2) to evaluate the level of patient satisfaction with the written information they received.

Methods and Materials: A sample of 100 patients will be surveyed. The first cohort of patients will receive the original education material. The second cohort of patients will receive the education material revised. The survey will be administered to both cohorts of patients at two points during their treatment pathway: at the beginning of their radiation treatment appointment and at the six week follow up appointment. A satisfaction survey has been derived from the standard patient satisfaction survey currently in use at our institution. Survey’s questions evaluate several measures including content, amount, ease of understanding and timing of information delivery.

Results: Data collection is currently ongoing. Qualitative responses will be reviewed and categorized using thematic analysis. Data from the two patient cohorts will be compared. Descriptive statistics will be used for quantitative analysis. Independent t-test will be used to test for differences between the two cohorts of patients. A rank-sum test will be used to determine whether the two groups of respondents differ in their average response. Within each cohort, a dependent t-test will be used to test for differences between the two time points at which the data is collected.

Conclusions: The information gathered will be used to assess the usefulness of the new educational booklet compared to previous material. This may help develop site specific educational materials to improve our current practice and patient satisfaction.

DECISIONS, DECISIONS - PATIENT CENTRED DECISION AID FOR OROPHARYNGEAL CANCER TREATMENT
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Purpose: Definitive radiotherapy (RT) with or without chemotherapy has been the standard of care for early oropharyngeal cancer, achieving excellent oncologic outcomes but often with significant toxicities. Trans-Oral Robotic Surgery (TORS), a minimally invasive surgical approach, has emerged as a promising alternative with initial reports suggesting comparable oncological outcomes and excellent functional outcomes. Current studies are being performed to compare these two modalities in a head-to-head fashion; however, patient preferences regarding the choice of RT versus TORS are unknown. A Decision Aid was developed to navigate newly-diagnosed patients through the complex process of deciding between the two treatment modalities to best suit their individual circumstances.

Methods and Materials: A Decision Aid was developed on an interactive multimedia web platform to enable ease of access in multiple settings. It provides a visual description of the treatment modalities, including their respective timelines, and photographs of treatment-related equipment. Detailing of the potential benefits and side effects of each treatment was included, with their relative frequencies. Healthy adult volunteers (age 18-80) were recruited to pilot test the online module and confirm psychometric properties. Following a verbal description of a hypothetical diagnosis of early oropharyngeal cancer, subjects were guided through the Decision Aid with a trained researcher. Subjects were then asked to make a preferred treatment based on the assumption of equal oncological outcomes. Once established, the survival rate of the alternate therapy was increased to establish a treatment tradeoff point, in which the preferred strategy would switch.