Introduction

Oropharynx and supraglottic tumors comprise approximately one-fifth of all head and neck cancers. Most of these are squamous cell carcinoma. For these patients, prognosis primarily depends on the location of the tumor and the initial staging and grading of the disease [1]. While surgery, endoscopic laser resection, chemotherapy, and radiation (alone or in combination) are all possible treatments [2], previous research has proved the value of TORS in regards to long term swallowing outcomes.

While endoscopic laser resection and TORS have many similarities, the former has distinct disadvantages including the use of a rigid laryngoscope (often obscuring adequate visualization of the tumor) and fragility of the flexible fiber CO2 delivery (restricting its use in dissection) [3]. In contrast, TORS provides three-dimensional visualization and magnification which facilitates increased precision and accuracy, preserving motor and sensory innervation to the pharynx that is vital for optimal swallowing [5]. Patients with oropharynx and supraglottic laryngeal cancers often experience poor post-treatment quality of life, and swallowing function has been shown to be an important component of this.

Patient Population

Eleven patients were identified: four female, 7 male. The average age was 64.7 years with a range of 57 to 74 years. Nine patients were white while the remaining two were black.

Objectives

Our objectives were to define functional swallowing outcomes as well as to determine an expected length of time for patients to safely return to a normal oral diet in TORS for supraglottic laryngeal cancer.

Methods

A retrospective chart review was performed identifying patients who underwent TORS for resection of supraglottic laryngeal cancer from 2011 to 2013. ASHA’s National Outcomes Measurement System (NOMS), oral diet levels, and dependency on tube feedings were used as outcome measures.

Results

• Five out of 11 patients completed the treatment program and follow-up care.
• One hundred percent patients who underwent TORS for supraglottic laryngeal cancer returned to full oral diets by an average of 21 weeks, all subsequently having their feeding tubes removed.
• Sixty percent of these patients continued to require compensatory swallowing techniques (i.e. supraglottic swallowing maneuver) and/or modified diets (i.e. thickened liquids) in order to safely consume oral diets without aspiration.
• Three patients expired, one patient was lost to follow-up, and two patients were still NPO at last contact.

Discussion

Previous research has shown favorable swallowing outcomes for patients undergoing TORS for supraglottic malignancies. One particular study has even stated that “eleven [out of 13 patients] were started on an oral diet within 24 hours of surgery with no evidence of immediate airway compromise” [4]. Unfortunately, our results have shown that while favorable swallowing outcomes should be expected in the long term (especially when compared to more invasive treatments), patients that have undergone supraglottic laryngectomy via TORS will likely experience significant dysphagia both post-op and in the intermediate term.

References