



Editorial

Organ preservation in laryngeal and hypopharyngeal cancer



Introduction

Since the VA Larynx trial [1] organ preservation treatment strategies have been widely utilized in the management of early and advanced laryngeal cancer [2]. While nonsurgical treatment strategies are common in patients with excellent laryngeal function, surgical management still plays a vital role in the primary and salvage treatment settings [3]. In this series, we present seven articles that review the landmark studies that have advanced our current knowledge pertaining to the management of laryngeal and hypopharyngeal cancer.

I. Early Stage Disease: Radiation or Surgery?

Treatment of early-stage laryngeal cancer: A comparison of treatment options [4]

Surgical and nonsurgical approaches are both commonly utilized for T1/T2 laryngeal cancer, often with single modality treatment [5,6]. While a lack of prospective randomized trials makes comparisons between treatment modalities difficult, there is a surplus of observational studies and meta-analyses that present outcomes for both primary radiation and surgical treatment. In this article, Baird et al. perform a comprehensive, state of the art analysis of early stage laryngeal cancer, providing an excellent summary of the oncologic, voice, and swallowing outcomes in patients undergoing surgical and radiation treatment [4]. Additionally, the authors review the data regarding cost utility and patient burden based upon treatment modality. In this review, the authors provide readers with an excellent framework for treatment decision-making in patients with early stage laryngeal cancer.

II. Advanced Stage Disease: Organ Preservation Treatment

Organ preservation for advanced larynx cancer: A review of chemotherapy and radiation combination strategies [7]

In this paper, Bonomi et al. [7] comprehensively review the landmark trials [8] that have pioneered organ preservation treatment and provided the evidence for recent American Society of Clinical Oncology guidelines [2]. The authors review the evidence in support of concurrent chemoradiation treatment as well as induction chemotherapy followed by RT or CRT. While induction chemotherapy is controversial in the United States, the authors objectively present the data and explain the why this may be a preferred approach in Europe. Additionally, the authors discuss the therapeutic challenge of organ preservation treatment in cisplatin-ineligible patients. Importantly, Bonomi et al. highlight the exclusion criteria in the major organ preservation trials and discuss the importance of proper patient selection for optimal laryngeal preservation and oncologic outcomes.

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From VA Larynx to the future of chemoselection: Defining the role of induction chemotherapy in larynx cancer [9]

Utilizing induction chemotherapy as a biologic agent for treatment selection, or chemoselection, has been proposed as a method to predict response to nonsurgical treatment [10]. Spector et al. [9] provide a comprehensive review of the evolution of chemoselection from the VA Larynx protocol [1] to current chemoselection protocols [11] and provide compelling data to support such an approach. Focusing on outcomes of trials utilizing induction chemotherapy as a biologic selection agent, the authors propose the use of single cycle chemotherapy as a useful prognosticator for tumor behavior and to aid in treatment selection for advanced larynx cancer.

Hypopharyngeal cancer: A state of the art review [12]

This edition also includes an evidence-based review on the management of hypopharyngeal cancer. Because hypopharyngeal cancers have commonly been studied in combination with larynx cancers, significant challenges exist when interpreting the data. In this paper, Garneau et al. [12] comprehensively present the data from the organ preservation trials that included hypopharyngeal cancers [13,14]. This manuscript provides tremendous insight into the current knowledge that has formed the basis of current NCCN guidelines [15] while also highlighting the need for future directions and trials needed for this subsite. Finally, the authors review the evidence supporting a primary surgical approach with an emphasis on modern organ sparing techniques utilizing transoral laser microsurgery and transoral robotic surgery via transoral approach.

III. Surgical Treatment of Laryngeal Cancer

Decision making in advanced larynx cancer: An evidence based review [16]

The role of primary surgery in the management of T3 and T4 larynx cancer harbors some controversy and may vary between institutions [17]. In this paper, Eskander et al. [16] review population-based studies that analyzed outcomes outside of the confines of the aforementioned controlled clinical trials. The authors discuss studies utilizing the Surveillance, Epidemiology, and End Results database and the National Cancer Database amongst others, to highlight patient populations that may gain a survival benefit from a primary surgical approach and postoperative radiation treatment [18–20], namely T3 cancers with vocal fold paralysis. While these cancer registries cannot account for selection bias, their discussion provides important contrast and insight into the challenges of translating clinical trial results into routine clinical scenarios. Additionally, the authors provide evidence supporting a primary surgical approach for T4 cancers [21], as well as a discussion of how tumor volume and preoperative laryngeal function impacts treatment decision making.

Salvage laryngectomy following organ-preservation therapy – An evidence-based review [22]

When cancer persists or recurs following nonsurgical treatment, salvage total laryngectomy is commonly indicated [23,24]. In this paper, Silverman et al. [22] present the latest survival data in patients that require salvage laryngectomy after unsuccessful nonsurgical treatment. The authors also review important predictors of successful salvage as well as predictors of postoperative complications. Additionally, the authors address two areas of controversy in salvage surgery: the role of elective neck dissection in the N0 salvage setting, and the impact of vascularized free tissue transfer for hypopharyngeal reconstruction after salvage laryngectomy.

State of the art: Rehabilitation of speech and swallowing after total laryngectomy [25]

Optimizing post-laryngectomy function is paramount to improving quality of life in this patient population. The field of speech and swallowing rehabilitation after laryngectomy continues to advance. In this paper, Zenga et al. [25] present the current state of the art data in post-laryngectomy rehabilitation and provide important expert commentary aimed at improving post-laryngectomy function and quality of life. The authors review the literature regarding perioperative and postoperative techniques to address post-laryngectomy dysphagia. Additionally, they provide an overview of the modalities for post-laryngectomy speech rehabilitation including a discussion of the pros and cons of primary versus secondary tracheoesophageal puncture. Finally, the authors provide expert commentary and insight into common, yet significant challenges with tracheoesophageal speech.

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