

Salvage Conservation Laryngeal Surgery After Radiation Therapy Failure



Michelle Mizhi Chen, MD^a, F. Christopher Holsinger, MD^{b,*},
Ollivier Laccourreye, MD^c

KEYWORDS

- Conservation laryngeal surgery • Larynx • Radiation • Salvage
- Supracricoid • Laser

KEY POINTS

- Many patients with recurrent tumors after radiation therapy (RT) with or without chemotherapy usually require total laryngectomy because of their advanced stage and functional decline.
- Radiorecurrent disease often presents with submucosal multifocal disease that is clinically understaged more than half the time.
- Patients undergoing salvage conservation laryngeal surgery (CLS) should be counseled about a substantially longer recovery than patients undergoing CLS as the primary therapy.
- Preoperative evaluation and postoperative rehabilitation with a speech language pathologist is critical for recovery after salvage CLS.
- Open CLS provides better oncologic outcomes for patients in the salvage setting, but transoral laser microsurgery (TLM) is associated with a shorter recovery and does not require an extensive rehabilitation process; however, TLM may require more than one procedure to achieve local control and has a lower rate of laryngeal preservation than supracricoid partial laryngectomy (SCPL).

INTRODUCTION

The incidence of larynx cancer in the United States for the year 2014 was estimated to be 12,630 cases, accounting for 3610 deaths, with a male/female ratio of 4:1.¹ Despite improvements in diagnostic and therapeutic techniques, the overall survival rate has not improved substantially during the past 25 years.²

^a Division of Head and Neck Surgery, Department of Otolaryngology – Head and Neck Surgery, Stanford University, 801 Welch Road, Palo Alto, CA 94305-5820, USA; ^b Head and Neck Oncology Program, Division of Head and Neck Surgery, Department of Otolaryngology – Head and Neck Surgery, Stanford University, 875 Blake Wilbur Drive, Palo Alto, CA 94305-5820, USA; ^c Department of Otorhinolaryngology – Head and Neck Surgery, University Paris Descartes Sorbonne Paris Cité, Hôpital Européen Georges Pompidou, Assistance Publique – Hôpitaux de Paris, 20 rue Leblanc, Paris 750015, France

* Corresponding author.

E-mail address: holsinger@stanford.edu

Abbreviations

CLS	Conservation laryngeal surgery
RT	Radiation therapy
SCPL	Supracricoid partial laryngectomy
SGL	Supraglottic laryngectomy
TLM	Transoral laser microsurgery
VPL	Vertical partial laryngectomy

WHAT IS CONSERVATION LARYNGEAL SURGERY?

CLS³ encompasses open surgical techniques such as laryngofissure with cordectomy and SCPLs; it also includes transoral endoscopic head and neck surgical techniques.⁴ The cornerstone of CLS rests on these fundamental principles that optimize both oncologic and functional outcomes. The surgeon should consider CLS when the proposed surgery should have a high probability of achieving local control in the larynx and preserve at least 1 cricoarytenoid unit, which serves as the basic functional unit of the larynx. The cricoarytenoid unit includes 1 functioning arytenoid, an intact cricoid cartilage, associated laryngeal musculature, and corresponding innervation by the superior and recurrent laryngeal nerves. The conservation laryngeal surgeon must have carefully examined the extent of the patient's tumor to provide the patient with a high probability of completing the resection without requiring total laryngectomy. The conservation laryngeal surgeon must also understand that the resection of normal tissue may be necessary to achieve consistent functional outcomes. Finally, the patient and surgeon must understand and accept that a successful functional outcome after CLS following RT may take much longer to achieve than after primary CLS.

Laryngofissure with cordectomy is best suited for small, mid-vocal fold lesions not reaching the anterior commissure or the vocal process with no impairment of vocal fold mobility in patients in whom endoscopic exposure is inadequate. This approach involves splitting of the thyroid cartilage to gain access to the endolarynx and excise the affected vocal fold.⁵ Although this procedure was previously characterized by the need for a perioperative tracheotomy,⁶ Muscatello and colleagues⁷ reported a series of 33 cases in which no tracheotomies were needed. In this cohort, the local control rate was 100%, the 5-year survival rate was 97%, and the laryngeal preservation rate was 100%. Daniilidis and colleagues⁸ observed similar results in a cohort of 94 patients with a 5-year survival rate of 93% but acknowledged that the survival rates were significantly poorer in patients who were treated with a laryngofissure and cordectomy for local recurrence after RT. Only 2 of the 5 patients treated with a salvage procedure survived for more than 5 years; the remainder died from another recurrence.⁸

Vertical partial laryngectomy (VPL) or vertical hemilaryngectomy entails extending a laryngofissure with cordectomy to include resection of the corresponding thyroid ala with the affected vocal fold, sparing the ipsilateral arytenoid and, if needed, the anterior commissure or the anterior one-third of the contralateral vocal fold. For T1 lesions treated with VPL, local control rates are 89% to 100%. Involvement of the anterior commissure decreases local control; one study reported that anterior commissure involvement decreased local control from 93% to 75%.⁹ The same study found that local recurrence decreased the 10-year survival rate from 63% to 31%.⁹ T2 tumors treated with VPL have local control rates of 74% to 86%. One meta-analysis review found better rates of local control in select patients without impairment of vocal fold immobility or significant extension to the subglottis or supraglottis.¹⁰ VPL as salvage surgery for early-stage glottic cancers that recur after RT has been shown to have

Download English Version:

<https://daneshyari.com/en/article/4123474>

Download Persian Version:

<https://daneshyari.com/article/4123474>

[Daneshyari.com](https://daneshyari.com)