

LETTER TO THE EDITOR

The role of cricohyoidoepiglottopexy in the era of transoral laser surgery and radio/chemotherapy

Il ruolo della cricoioideoepiglottopessia nell'era della chirurgia laser transorale e della radio/chemioterapia

A. DE VIRGILIO, A. GRECO, M. DE VICENTIIIS

Department of Sensory Organs, ENT Section, Sapienza Università di Roma, Italy

Acta Otorhinolaryngol Ital 2014;34:209

Dear Editor,

We would like to take the opportunity to comment our point of view on the current role of cricohyoidoepiglottopexy in the treatment of laryngeal squamous cell carcinoma (LSCC). Since 1984 our group has performed 456 supracricoid partial laryngectomies (SPL), 81 of which were crico-hyoid-epiglottopexies (CHEP). We used this technique in T1, T2 and in selected T3 LSCC. Over the years, we gradually reduced the use of CHEP whose indications, in our opinion, are more specific and limited in current practice. This is due to the increasing and more effective use of surgical and non-surgical alternative treatments for LSCC.

Literature data highlight how radiotherapy and endoscopic removal by CO₂ laser are the preferred treatment options for T1 and most T2 glottic LSCC in the majority of centres. Local control and organ preservation rates greater than 90% are reported. In addition, open techniques are related to poorer results in terms of vocal function, quality of life and costs. For these reasons, CHEP currently appears to be a procedure that is too invasive and burdening, and its use should be limited to selected T2 cases (e.g. vocal cord mobility impairment)¹. Even in T3 glottic LSCC, we believe that CHEP has a limited use. In fact, CHEP removes thyroid cartilage, both true and false cords, part of the epiglottis, while saving most of the paraglottic space with the preservation of one or both arytenoids. The paraglottic space represents a lymphatic-adipose region that is contiguous to the pre-epiglottic space. Through the paraglottic space a glottic LSCC can easily spread towards the pre-epiglottic space and possibly into the extra-laryngeal structures². For this reason, in our opinion, the use of CHEP in advanced glottic LSCC should be limited to the rarest unilateral T3, without massive pre-epiglottic space and anterior commissure involvement, and with one-sided and very limited thyroid cartilage involvement.

We believe that crico-hyoid-pexy (CHP) is a safer and more conservative surgical alternative for treatment of locally advanced LSCC. This technique, involving the com-

plete removal of the epiglottis and pre-epiglottic space, in addition to CHEP, allows a more radical and safer excision of selected, locally advanced glottic/supraglottic LSCC³. In our experience, post-operative quality of life and oncological and functional results appear to be comparable to CHEP. However, unlike CHEP, CHP is related to a longer swallowing rehabilitation period, but as documented in the literature, at 12 months after surgery no substantial differences between CHEP and CHP with reference to oral and pharyngeal transit times emerged⁴. Finally, for the reasons discussed above, we believe that the current indications for CHEP should be: 1. Glottic T1-T2 LSCC with poor exposure; 2. Glottic T1-T2 LSCC where radiotherapy is contraindicated due to local or general factors and T2 with impaired vocal cord mobility; 3. Selected glottic T3-T4 LSCC without anterior commissure involvement and/or with limited involvement of the paraglottic space and minimum erosion of the thyroid cartilage.

Acknowledgements

We are grateful to Maria Grazia Saladino for her valuable contribution in editing the manuscript.

References

- Hartl DM, Ferlito A, Brasnu DF, et al. *Evidence-based review of treatment options for patients with glottic cancer*. Head Neck 2011;33:1638-48.
- Gallo A, Moi R, Simonelli M, et al. *Salvage resection after previous laryngeal surgery: total laryngectomy with en bloc resection of the overlying cervical skin*. Arch Otolaryngol Head Neck Surg 2001;127:786-9.
- De Virgilio A, Fusconi M, Gallo A, et al. *The oncologic radicality of supracricoid partial laryngectomy with cricohyoidopexy in the treatment of advanced N0-N1 laryngeal squamous cell carcinoma*. Laryngoscope 2012;122:826-33.
- De Vicentiiis M, Calcagno P, Di Cello P, et al. *Transit time of swallowing after subtotal laryngectomy*. Rev Laryngol Otol Rhinol (Bord) 2004;125:223-7.

Received: June 27, 2013 - Accepted: August 13, 2013

Address for correspondence: Armando De Virgilio, viale del Policlinico 155, 00100 Rome, Italy. Fax +39 06 49976803. E-mail: armando.devirgilio@gmail.com