

Trends and current information

## Tracheoesophageal puncture with intraoperative voice prosthesis placement

Robinson RA, Simms VA, Ward EC, Barnhart MK, Chandler SJ, Smee RI. Total laryngectomy with primary tracheoesophageal puncture: Intraoperative versus delayed voice prosthesis placement. *Head Neck*. 2017 Feb 23. doi: 10.1002/hed.24727. [Epub ahead of print]

This study prospectively compared intraoperative voice prosthesis placement with delayed voice prosthesis insertion. Patients, services and cost benefits of the different placement methods were compared in 14 patients whom had undergone a laryngectomy with intraoperative placement, and in 10 patients who underwent delayed voice prosthesis insertion. The patients whom underwent intraoperative placement were

associated with significantly fewer early device changes (1.4 vs 2), changes due to resizing (8% vs 80%), earlier commencement to voice rehabilitation (13.2 vs 17.6 days), longer durations to initial voice prosthesis change (159.7 vs 24.5 days) and cost savings of \$559.8/person. The authors conclude that superior clinical and patient benefits are associated with intraoperative voice prosthesis placement during primary TEP.



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## Laryngectomy and HME use

Lansaat L, Boer CV, Muller SH, Noort VV, Brekel MW, Hilgers FJ. Ex vivo humidifying capacity and patient acceptability of stoma cloths in laryngectomized individuals. *Head Neck*. 2017 Feb 2. [Epub ahead of print]

It is well-proven and generally accepted that Heat and Moisture Exchangers (HMEs) significantly improve respiratory function after laryngectomy. Therefore, it is not surprising that HMEs largely have replaced the use of stoma cloths. However, thus far, no valid data has been published on the physical and clinical effects of stoma cloths in comparison to HMEs. This study, therefore, was designed to 1) assess the humidifying capacity of stoma cloths ex-vivo and 2), compare the patient acceptability and pulmonary effects of stoma cloths and HMEs in a 4-week randomized clinical trial. The ex-vivo part of the study predictably showed that stoma cloths had adequate humidifying capacity, but that any air leakage around the cloth significantly undermined that capacity. This

was confirmed in the clinical study, which showed that stoma cloths were less effective at reducing coughing and mucus production. Moreover, patients who used HMEs disliked stoma cloths because they interfered with voicing, and became soiled, and uncomfortably wet. This was completely prevented when the patient used a HME underneath the stoma cloth. The ex-vivo study also showed that the combination of the HME and stoma cloth had the best humidifying capacity. Since in daily practice the humidification effects of solitary stoma cloth-use are less satisfactory, the authors conclude that stoma cloth-use only should be encouraged for covering HMEs if further optimization of humidification is warranted, e.g. in winter time, or when HMEs are unavailable or inapplicable.

## Treatment of laryngeal cancer

Shuman AG, Larkin K, Thomas D, Palmer FL, Fins JJ, Baxi SS, Lee N, Shah JP, Fagerlin A, Patel SG. Patient Reflections on Decision Making for Laryngeal Cancer Treatment. *Otolaryngol Head Neck Surg*. 2017 Feb;156(2):299-304.

In this study, the authors described the reflections of patients treated for laryngeal cancer with focus on treatment related decision making. This was done using a cross-sectional survey pilot study of 57 patients with laryngeal carcinoma (46% treated surgically, 54% non-surgically). When considering the level of involvement of clinicians and specialists in their care, patients were more likely to believe the specialist whom they saw first in deciding how to treat their cancer. Patients that reported worse voice related quality of life

recalled more decisional conflict and regret. Subsequently, patients that had speech as a top priority prior to treatment - better quality of life scores were correlated with less decision regret were seen. The authors conclude that individual priorities and attitudes, coupled with referral patterns can influence how patients react on their choices regarding management of laryngeal cancer and that more insights in this could lead to an individualized cancer treatment planning.

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## Primary versus secondary TE puncture

Gitomer SA, Hutcheson KA, Christianson BL, Samuelson MB, Barringer DA, Roberts DB, Hessel AC, Weber RS, Lewin JS, Zafereo ME. Influence of timing, radiation, and reconstruction on complications and speech outcomes with tracheoesophageal puncture. *Head Neck*. 2016 Dec;38(12):1765-1771.

The comparison of primary to secondary tracheoesophageal puncture (TEP) is often confounded by patient selection and/or a history of radiation. Many studies have previously lacked the statistical power to address the effect of previous radiation and its influence on rate of postoperative complications in primary TEP. In this retrospective review, a large cohort of patients consecutively undergoing primary or secondary TEP were examined to determine the effect of radiation and pharyngeal reconstruction on speech outcomes and complications. Patients that

had undergone either primary or secondary TEP showed no difference in statistical power when comparing rate of complications. In addition, no difference was seen in severity of complications. With patients grouped by TEP timing and radiation history, no difference was seen in complications, fluency or TEP use. The authors conclude that primary and secondary TEP speakers experience similar rates of complications. Extent of pharyngeal reconstruction rather than radiation may be more important in selection of TEP timing.

## TheraBite and trismus

Montalvo C, Finizia C, Pauli N, Fagerberg-Mohlin B, Andréll P. Impact of exercise with TheraBite device on trismus and health-related quality of life: A prospective study. *Ear Nose Throat J*. 2017 Jan;96(1):E1-E6.

This study examined the impact of structured exercise with TheraBite on trismus by addressing trismus-related symptoms and health-related quality of life in 15 patients with head and neck cancer with an average of 6.2 years between oncologic treatment and TheraBite exercise. The TheraBite exercise program lasted for 10-weeks and the measurements were conducted before, after and 6 months

after exercise. A significant improvement in maximum interincisal opening (MIO) was reported post-exercise (3.5mm, 15.3%) and after 6-month follow up (4.7mm, 22.1%) – including fewer trismus-related symptoms. The authors conclude that structured exercise with TheraBite seems beneficial for patients with trismus independent of time since oncologic treatment.