

Trends and current information

## Voice prosthesis and quality of life

Summers L. Social and quality of life impact using a voice prosthesis after laryngectomy. *Curr Opin Otolaryngol Head Neck Surg* 2017;25(3):188-94.

In this review, the authors presents an up-to-date overview of key developments within quality of life (QoL), focusing on the psychological consequences following laryngectomy and the social and QoL impact of using a voice prosthesis. One of the key points discussed by the authors is the impact of social support provided by the healthcare professionals and the voluntary sector (eg family and friends). Formal training for the speech language

therapists (SLTs) in the psychological aspect of adjustment and coping in oncology is vital in managing the long-term disease burden for the patients. Integrating the voluntary sector and health sector, would help to increase public awareness and reduce the social stigma associated with laryngectomy. The authors conclude that collaboration and appropriate interventions is needed for enhancing communication, participation and QoL after laryngectomy.

## Physical activity and quality of life

Sammut L, Fraser LR, Ward MJ, Singh T, Patel NN. Participation in sport and physical activity in head and neck cancer survivors: associations with quality of life. *Clin Otolaryngol*. 2016 Jun;41(3):241-8.



In this study, the authors have examined the effect of physical activity on quality of life (QoL) in a population of head and neck cancer patients that had either surgery only, or surgery combined with RT and/or CRT. Patients attending the Head and Neck Cancer Clinic at University Hospital Southampton were invited to participate in a questionnaire-based survey regarding physical activity (PA) pre- and post-treatment. Activities were scored as metabolic equivalent task (MET), depending on duration and type of activity. Statistical significant decrease in MET-minutes/week at pre-diagnosis following completion of treatment was observed in cancer of facial bones, larynx, oral and salivary glands. Nearly two-thirds of patients (59.9%) reported to be completely sedentary after completion of treatment. For patients performing higher levels of PA post-treatment there was a positive correlation to improved QoL. The authors conclude that PA may improve QoL following treatment for head and neck cancer.

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## Free Jejunal reconstruction and tracheoesophageal speech

Hirofumi Fukushima, MD; Takeharu Kanazawa, MD, PhD; Kazuyoshi Kawabata, MD; Hiroki Mitani, MD, PhD; Hiroyuki Yonekawa, MD; Toru Sasaki, MD, PhD; Wataru Shimbashi, MD, PhD; Akira Seto, MD; Ryouzuke Kamiyama, MD, PhD; Kiyoshi Misawa, MD, PhD; Takahiro Asakage, MD, PhD. Indwelling Voice Prosthesis Insertion After Total Pharyngolaryngectomy With Free Jejunal Reconstruction. *Laryngoscope Investigative Otolaryngology* 2017;2(1):30-35. doi: 10.1002/liv.2.63

The authors aimed to determine features and complications associated with secondary insertion of an indwelling voice prosthesis (Provox2 and Provox Vega) in patients receiving total pharyngolaryngectomy (TPL) with free jejunal reconstruction. Communication outcomes and complications associated with the site of insertion (jejunal or esophageal) and adjuvant irradiation was retrospectively analyzed in 130 TPL patients. Positive communication outcomes were reported in

78.4% of cases (n=102). Lower complication rate and significantly shorter hospitalization duration was observed in cases receiving free jejunal insertion compared to those receiving esophageal insertion. In cases where Provox Vega was used the complication rate was significantly reduced to zero compared to Provox 2. The authors conclude that the secondary insertion of a voice prosthesis should be considered the standard therapy for voice restoration after TPL with free jejunal reconstruction.

## Chemoradiotherapy or Total laryngectomy?

Hamilton DW, Pedersen A, Blanchford H, Bins JE, McMeekin P, Thomson R, Paleri V, Wilson JA. A comparison of attitudes to laryngeal cancer treatment outcomes: A time trade-off study. *Clin Otolaryngol* 2017 doi: 10.1111/coa.12906

The authors aimed to investigate the favored health state associated with laryngeal cancer treatment in head and neck patients and members of the head and neck cancer multidisciplinary team. Study participants (49 patients and 73 health professionals) were recruited from two head and neck cancer clinics in the north-east of England. They were asked to rank outcome scenarios for chemoradiotherapy (CRT) and total laryngectomy (TL) in a time trade-off experiment, assign utility values and rate the survival advantage. CRT with complications was the significant least

favored treatment of choice for advanced laryngeal cancer in both groups (55% of patients and 70% of staff members). The health professionals rated the health states associated with laryngeal cancer treatment higher than patients, being particularly evident when considering the poorer outcomes. The authors demonstrated that a significant proportion of patients with head and neck cancer staff members would not choose CRT. Therefore it is suggested that the head and neck cancer community should develop methods of practice and decision-making that incorporates patient values.

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## A new peristomal adhesive: Provox StabiliBase OptiDerm

Lansaat L, Kleijn Bd, Hilgers F, van der Laan B, van der Brekel M. Comparative Study Between Peristomal Patches in Patients with Definitive Tracheostomy. *Int Arch Otorhinolaryngol (EFirst)* doi: 10.1055/s-0037-1603921 [published Online First: 16.06.2017]

Provox StabiliBase OptiDerm (SBO) is a skin friendly adhesive developed for laryngectomized patients with experience of skin irritation. The SBO consists of a stable base, similar to that of Provox StabiliBase, but with a hydrocolloid adhesive, similar to Provox OptiDerm. The authors investigated the adhesive in a 2 x 2 crossover study with patient preference being the primary outcome measure. The participating 32 laryngectomized patients were asked to compare SBO with OptiDerm (OD) and the adhesive they normally used. Most patients (60%) preferred their normally used adhesive, but there was also

a subgroup (23%) that preferred the SBO. When comparing SBO to the OD, 43% of patients preferred the SBO, 40% the OD and 17% had no preference. The authors conclude that Provox StabiliBase OptiDerm seems to be a valuable addition to the existing peristomal attachment options.



## Tracheostoma morphology variation

Maartje Leemans, Maarten J. A. van Alphen, Michiel W. M. van den Brekel, Edsko E. G. Hekman. Analysis of tracheostoma morphology. *Acta Oto-Laryngologica* Vol. 137, Iss. 9, 2017

To enable use of automatic speaking valve and its ultimate hands-free speech in laryngectomized patients, improvements are required in user comfort, strength of fixation and proper airtight sealing. Designing or customizing an airtight intratracheal fixation requires quantitative data and insight in the tracheostoma geometry. Computerized tomography (CT) scans for tracheostomal morphologic comparison of 20 laryngectomized patients were performed with the aim of defining a golden standard for new intratracheal fixation devices. The data outcomes showed significant variation between the study participants, particularly in stoma

depth and neck opening at skin level. The mean transverse and sagittal diameters of the stoma at the peristomal lip were 19.2 mm (with a standard deviation SD at 5.3 mm) and 17.6 mm (SD 7 mm), respectively. The mean stoma depth was determined to 14.0 mm (SD 6.4 mm) and the mean tracheoesophageal (TE) valve and peristomal lip distance was 13.5 mm (SD 7.0 mm). The authors state that the variation is likely to occur due to differences in surgical procedures or in patient's neck geometry. It is concluded that providing an airtight fixation in each patient will require a large range of different sizes, customization or new approaches.