HME use to reduce post-operative complications


One of the consequences of a total laryngectomy is a complete disconnection of the upper and lower airways. Breathing through a permanent tracheostoma in the neck, the nasal functions of warming, humidifying and filtering of the inhaled air are lost. Therefore unfiltered, cold air with reduced humidity enters the lower airways, resulting in mucus overproduction, frequent involuntary coughing and repeated forced expectoration to clear the airway, negatively impacting the quality of life. Heat and moisture exchangers (HME) have been developed to restore the lost function of nasal breathing, improving the patient’s respiratory performance and their quality of life. This study investigated the cases of post-operative complications of mucus plugging in laryngectomized patients, and the relation with HME use. Of the 48 included patients, 16 had used an HME and 32 had used external humidification (EH). Of the 24/48 patients experiencing mucus plugging, only 12.5% (3/24) used an HME, in contrast to 87.5% (21/24) who used EH. The authors conclude there is a significant reduction in in-hospital complication with HME use. Coupled with the long-term benefits of HMEs and their cost-effectiveness, this supports the more widespread introduction of HMEs in head and neck surgical practice.
Anxiety and Self-care


This study investigated the prevalence of preoperative and immediate postoperative anxiety in laryngectomized patients, and its relation with the self-care level. Anxiety levels and self-care levels were assessed, in the preoperative phase and at 7 and 14 days after surgery, in 40 patients with stage IV laryngeal cancer. The patients presented high levels of anxiety, increasing between preoperative phase and 7 days after surgery from 70% to 97.5%, decreasing between 7 days and 14 days after surgery from 97.5% to 72.5%. Preoperative, 85% of the patients were self-sufficient for activities of daily living. Seven days after surgery 97.5% needed help. At 14 days post-surgery, 70% still needed help. On average, self-sufficient patients presented lower anxiety levels than patients who needed help for activities of daily living and surgery-related activities, without significant differences. This study shows anxiety is present in preoperative and postoperative phases, and that self-care contributes to reduce anxiety levels.

Sport after Laryngectomy


One of the consequences of a total laryngectomy is a functionally destructive procedure with the loss of essential functions as a consequence. Rehabilitation programs are focused on the improvement of voice and swallowing. This study describes the role of rehabilitation sport as a first step to restoring an active life for laryngectomized patients. Recent studies showed that physical activity in patients with cancer improves quality of life, and increases overall and cancer-free survival. As part 1 of the project, 38 members of the German Society of Laryngeal Patients answered questions regarding their sporting activities, their experiences and thoughts. Swimming, cycling and walking were addressed as favorable disciplines. As part 2 of the project, 16 members participated in an aquatic therapy group. All members reported an improvement of self-activity, and the majority reported having feelings of fun and power, and an improvement in social contacts. The authors concludes that sportive rehabilitation could be the first step to a normal life for laryngectomized patients, and hydrotherapy as a re-start of physical exercises may be recommended.
Swallowing problems after CRT

The long-term results of RTOG 91-11, a trial comparing three non-operative organ-preservation treatments, showed a trend toward inferior survival after concomitant chemoradiotherapy (CRT), with an increase in non-cancer related deaths. This result, combined with data from the National Cancer Database suggesting a downward trend in overall survival as chemoradiation was adopted, has led some to consider the possibility that long-term toxicity on trial could lead to late toxic deaths. This study explores the possibility that severe late dysphagia (SLD) leads to unreported treatment-related deaths. Eighty-four patients, treated with CRT between 1993 and 2013 were included. The 5 year overall survival was 70%. The 5-year incidence of SLD was 26.5%, but no death was directly a result of treatment-induced late dysphagia. It is concluded that SLD is common after CRT for larynx cancer, and can occur beyond 5 years from the end of treatment. However, late mortality was not found to be related to dysphagia.

The objective of this retrospective study was to compare overall survival (OS) and functional outcomes in 451 patients with T3 glottic squamous cell cancer (SCC) receiving non-surgical (n=258) or surgical treatment (n=193 of which 100 primary total laryngectomy) between January 1992 and December 2010. The 5-year OS for non-surgical treatment was 36%, for surgery alone 41% and for surgery plus adjuvant treatment 41%. The adjusted hazard ration for OS was 0.68 for patients receiving surgery alone versus nonsurgical treatment, and 0.75 for patients receiving surgery plus adjuvant treatment versus nonsurgical treatment. The prevalence of gastrostomy tube dependence 1 year after the start of treatment was 20.6% among the nonsurgical treatment group, 18.5% among the surgical alone group, and highest in the surgical plus adjuvant treatment group: 30.6%, with no statistical differences between the groups. Among the patients receiving non-surgical treatment, 15% required a salvage total laryngectomy. The authors conclude, as overall survival improved significant after surgical treatment, that surgery as primary treatment needs to be discussed with all patients with T3 glottic SCC.

The past 2 decades the treatment of patients with advanced stage laryngeal cancer with concurrent chemoradiation (CRT) has gained popularity, but the survival rates for laryngeal cancer have declined. This study aims to compare the effectiveness of primary surgery with that of complete chemoradiation (CRT). Of the 3212 included patients with advanced laryngeal cancer, 1364 (42%) were treated with surgery, 571 (18%) with chemoradiation, 861 had other treatments (72.9% RT alone) and 416 had no treatment. Of the patients treated with CRT only 24% completed the full courses. There was no statistically significant difference in overall survival or laryngeal-cancer cause-specific survival between patients receiving surgery and complete CRT at 5 year. However, there were statistically significant differences in overall survival and laryngeal-cancer cause-specific survival between patients receiving surgery and patients treated with (complete or incomplete) CRT. The large numbers of patients receiving incomplete or non-standard treatment could explain the recent decline in overall survival for patients with laryngeal cancer. Although CRT preserves the larynx, the benefits and trade-offs of CRT and total laryngectomy should be discussed fully with patients before determining a treatment plan.
