Guidelines recommend total laryngectomy as initial management for T4a laryngeal cancer. The aim of this study was to examine practice patterns and compare survival outcomes between total laryngectomy (TL) and larynx preservation chemoradiation (LP-CRT), using the National Cancer Database. A majority of patients (64%) with T4a received LP-CRT, 36% received TL. Less advanced nodal disease and treatment at a high case-volume facility were predictors of receiving total laryngectomy. Compared with patients initially treated with total laryngectomy patients receiving larynx preservation chemoradiation had inferior overall survival. The authors conclude that, despite the guidelines suggesting TL, patients with T4a laryngeal cancer are most commonly treated with LP-CRT and have a worse overall survival compared with primary TL. They suggest that previous studies of locally advanced larynx cancer, showing no difference in survival between LP-CRT and TL, may not be applicable to T4a disease.

In the past total laryngectomy has been the standard treatment for locally advanced laryngeal cancer (T3-4). Since the publication of the VA laryngeal cancer trial in 1991 there has been a shift in treatment strategies towards an organ preservation approach with chemoradiation. This study aimed to determine whether survival is compromised by an organ preservation protocol. The treatment outcomes of primary surgery (37 patients) were retrospectively compared with chemoradiotherapy (34 patients). Overall survival rate, laryngeal preservation rate and laryngoesophageal dysfunction-free survival were determined. There was no significant difference between the surgical and nonsurgical group in the 5-year overall survival rate for patients with T3 or T4 lesions (resp. 41% vs 40%, and 54% vs 53%). The overall laryngeal preservation rate for the chemoradiation group was 79%. The laryngoesophageal dysfunction-free survival rate was 40% for T3 lesions, 33% for T4 lesions. The authors conclude that chemoradiation with organ preservation is possible for selected patients with locally advanced laryngeal cancer. However, the laryngeal and esophageal dysfunction rate is high in patients selected for an organ preservation protocol. This risk for impaired organ function should be included in counseling these patients.

Quality of life after treatment of laryngeal carcinoma has become an important outcome variable in the management algorithm. Established treatments such as total laryngectomy and chemoradiation have focused on survival and anatomic preservation of the larynx, but the impact of treatment on function of the larynx should be weighed against its oncologic benefit. The effect on quality of life is detrimental. Transoral laser microsurgery and transcervical partial laryngectomy procedures can offer significant QoL advantages, when used in appropriately selected cases of early advanced, and recurrent laryngeal cancer.

Early stage laryngeal cancer is treated with radiotherapy alone, whereas for T4 tumors total laryngectomy or chemoradiotherapy is the treatment of choice. In T3 laryngeal cancer, guidelines are less clear. A uniform approach would be desirable in order to achieve the best outcome in terms of tumor control and toxicity. Therefore, a national survey was conducted to determine how T3 laryngeal carcinoma is currently treated in the Netherlands. In general, treatment of T3 laryngeal cancer in the Netherlands is comparable. All centers reported using primary RT with or without CT. Five centers reported the option of upfront total laryngectomy in exceptional cases (e.g., stridor, nonfunctional larynx). Voluminous T3N0 and most T3N+ tumors are treated with CT-RT, but there are some differences in the use of chemotherapy and dose-fractionation schemes. The aim of the National Platform is to further harmonize treatment protocols, optimizing patients outcomes.


There is an increase of treating advanced head and neck cancer with organ-preservation protocols such as chemoradiation therapy (CHRT). According to literature this treatment often results in swallowing and speech problems. The objective of this study was to assess the prevalence of patient-reported speech and swallowing outcome after chemoradiation therapy, based on the Dutch versions of the Swallowing Quality of Life Questionnaire (SWAL-QoL) and the Speech Handicap Index (SHI). Swallowing problems were present in 79% of the participating patients, speech problems in 55%. Normal food intake was reported by 45%, while 35% had a soft diet and 20% tube feeding. Patients with normal food intake had significant better mean scores on SWAL-QoL scales (e.g., general burden, eating duration, desire and fear) compared to patients with soft diet or tube feeding, except for sleep and fatigue. Tumor site and radiotherapy were significantly associated with swallowing outcome: patients treated for laryngeal or hypopharyngeal tumor had less problems compared to patients treated for oral, oropharyngeal or nasopharyngeal tumor. Patients treated with IMRT had less speech problems compared to 3D-CRT treatment. The authors conclude that swallowing and (to a lesser extent) speech problems are frequently reported by patients after chemoradiation for advanced head and neck cancer. Future studies are necessary to optimize the efficacy of new radiation techniques and to have more insight into the course of speech and swallowing problems after chemoradiation and their rehabilitation programs.

Total laryngectomy is the most common surgical option for advanced laryngeal cancer, which has a negative impact on the quality of life, with loss of the laryngeal functions. This study presents the first patient to have undergone artificial laryngeal prosthesis implantation after total laryngectomy, with a follow-up period of 8 months. The artificial prosthesis comprises 2 parts: a non-removable titanium tracheal prosthesis and a removable part with a valve system. First the tracheal prosthesis was implanted. The removable part, also made of medical-grade titanium, was implanted via endoscopy after 4 months. During these first 4 months the patient was able to resume oral feeding. After the insertion of the removable part the patient was able to speak with a whispering voice, by occluding the tracheostoma. The authors conclude the implantation of an artificial laryngeal prosthesis is a feasible procedure, restoring laryngeal functions as swallowing, breathing, smelling and speaking. Further improvements are required regarding the surgical technique, and the artificial larynx itself.