

VOICE CHANGE AFTER RADIATION THERAPY FOR EARLY GLOTTIC CANCER

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Background. The radiation therapy is a successful mode of treatment of early glottic cancer in the selected patients. The voice quality is an important factor in the patient's life influencing his/her communication, working capability and quality of life in general. The aim of the study was to follow the voice quality after successful treatment of early glottic cancer and to identify the factors influencing it.

Methods. Thirty-nine patients (34 men, 5 women, mean age 61.54 years, range 32-85 years) successfully treated for T1N0 glottic cancer were included in the study. The data about their voice complaints, the diseases influencing quality of voice (gastroesophageal reflux–GER, allergies, pulmonary diseases, hearing impairment) were obtained from their medical documentation. The patients fulfilled the Voice Handicap Index (VHI) questionnaire, and assessed their voice quality on VAS before and 3, 6 and 12 months after the treatment. The mucosal changes of the vocal folds were assessed with videolaryngostroboscopy (mild, moderate, severe), and the acoustic characteristics (F0, jitter, shimmer) of vowel /a/ samples were determined with MDVP, KayPentax, USA at the same occasions.

Results. Subjective assessment of the patient's voice, the VHI results and F0 significantly improved 3 months after the completed treatment. The postirradiation mucosal changes were more prominent 6 and 12 months than 3 months after the treatment but the difference was not significant. Thirteen patients were smokers, 25 were ex-smokers. The only positive correlation between the voice symptoms and diseases affecting voice was between the GER and voice fatigue 3 months and 12 months after the treatment.

Conclusions. After successful radiation treatment their voice significantly improves already in three months. It improves further with time but rarely becomes completely normal again. The treatment of other diseases adversely influencing voice quality can contribute to better voice quality and patient's' quality of life.