Objective assessment of the respiratory function of the larynx after fronto-lateral laryngectomy with epiglottoplasty and after supracricoid laryngectomy with CHP or CHEP.

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Summary

Enlarged fronto-lateral laryngectomy with epiglottoplasty and supracricoid laryngectomy with cricohyoidopexy (CHP) or cricohyoidoepiglottopexy (CHEP) differ from each other as regards surgical technique, extent of the resection and method of reconstruction. Despite of that, selected carcinomas of the true vocal cord staged as T2N0, which are included in indications to all mentioned laryngectomies, can be equally treated with each of these methods. The aim of this study is objective evaluation of the respiratory function of the larynx after three types of operation and comparison of the results. Material included 64 patients treated during the period of 1993-2002: 39 patients after supracricoid laryngectomy (18 with CHP and 21 with CHEP) and 25 after enlarged fronto-lateral laryngectomy with epiglottoplasty. Spirometry was performed before and after the operation in 27 cases and only after the operation in 34 cases. The shapes of flow-volume loops and 32 spirometric parameters were evaluated. The decannulation rates were: a) 98,5% after enlarged fronto-lateral laryngectomy with epiglottoplasty, b) 80,6% after supracricoid laryngectomy with CHP, c) 70,1% after supracricoid laryngectomy with CHEP. Although the decannulation rate was better after CHP than after CHEP the spirometric parameters were better in patients after CHEP than in those after CHP. The airflow similar to normal was found in 15% patients after CHEP as well as after CHP and in 28% patients after epiglottoplasty. There were no restrictive abnormalities in the whole group of operated patients, but occurrences of obturation, especially inspiratory, were quite often. In conclusion, which follows from the comparison of three types of reconstructive laryngectomies, better results of respiratory function of the larynx were found after epiglottoplasty than after supracricoid laryngectomy with CHEP or CHP.