ABSTRACT

Objective: To investigate by means of videostroboscopic characterization of the neoglottis after total laryngectomy with primary or secondary voice reconstruction using non-prosthetic tracheoesophageal (TE) fistula.

Methods: Prospective Prognostic Study Setting: Tertiary Hospital Patients: Twenty alaryngeal patients Results: Videostroboscopy enabled evaluation of the neoglottis following total laryngectomy in patients with a postprosthetic major mucosal wave at midportion of the pharyngo-esophageal (PE) segment. Pointing of saliva was present in the majority of neoglottis, opening of all but one subject was observed. In two thirds of patients the PE segment showed vibration of the neoglottis.

Vibration of the neoglottis was noted in 80% of all alaryngeal patients and was associated with a normal mucosal wave. Videostroboscopy evaluation of the neoglottis in all but two patients. It was associated with a normal mucosal wave, regular vibration and a long open phase. Conclusion: Videostroboscopy confirmed that neoglottic vibration accompanies speech production while phonopharyngeal vibratory motion enhances and reinforces vocal production in alaryngeal patients with non-prosthetic TE voice reconstruction. A modified version of the stroboscopic assessment form used for TE fistula with prosthesis suggested by Hirano and Bless was utilized in this study.

RESULTS

A flexible fiberoptic Olympus ENF P3 nasopharyngolaryngoscope and a transnasal flexible videostroboscopy of the hypopharynx and upper esophagus showed neoglottic activity during quiet breathing and voicing. Patients produced sustained vowel /a/ and /e/ sound once the tracheoesophageal voice was established. Videostroboscopy evaluation was performed after completion of rehabilitation. Videostroboscopy evaluation of the neoglottis in all but two patients was associated with a normal mucosal wave. Vibration of the neoglottis was noted in 80% of all alaryngeal patients and was associated with a normal mucosal wave. Videostroboscopy evaluation of the neoglottis in all but two patients. It was associated with a normal mucosal wave, regular vibration and a long open phase. Videostroboscopy confirmed that neoglottic vibration accompanies speech production while phonopharyngeal vibratory motion enhances and reinforces vocal production in alaryngeal patients with non-prosthetic TE voice reconstruction. A modified version of the stroboscopic assessment form used for TE fistula with prosthesis suggested by Hirano and Bless was utilized in this study.

METHODS AND MATERIALS

20 subjects met the inclusion criteria & consisted of 19 men and 1 woman with age 40 to 78 years (mean, 53 years). All underwent total laryngectomy. 1220 patients, the pharynx was reconstructed partially with a pericardial major mucosal flap. 80% patients underwent TE fistula reconstruction while 120 patient underwent secondary TE reconstruction 1.5 years post total laryngectomy. Videostroboscopy examination was performed after completion of rehabilitation. Videostroboscopy evaluation is essential in the assessment of the neoglottis. Videostroboscopy examination was performed after completion of rehabilitation. Videostroboscopy evaluation is essential in the assessment of the neoglottis. Videostroboscopy evaluation was performed after completion of rehabilitation. Videostroboscopy examination was performed after completion of rehabilitation. Videostroboscopy evaluation was performed after completion of rehabilitation. Videostroboscopy evaluation was performed after completion of rehabilitation.

Sequences were stored in a computer hard disk and replayed at different speeds to analyze voice characteristics and vocal fold movement. Videostroboscopy assessment of the neoglottis was elucidated and modified for nonprosthetic TE. Videostroboscopy evaluation of the neoglottis was performed as an abbreviated form for TE fistula patients. Videostroboscopy evaluation of the neoglottis was performed as an abbreviated form for TE fistula patients.

REFERENCES


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