The indwelling voice prosthesis for speech rehabilitation after total laryngectomy: a safe approach
A.J.M. Balm, M.W.M. van den Brekel, I.B. Tan, F.J.M. Hilgers

SUMMARY
Primary prosthetic voice restoration by performing tracheoesophageal puncture (TEP) and immediate insertion of a voice prosthesis at the time of total laryngectomy (TLE) is presently the method of choice. This enables the easiest and most comfortable voice rehabilitation with the patient still under general anesthesia when the first prosthesis is inserted. Reconstruction of the pharynx with e.g. free revascularized or pedicled flaps does not preclude surgical prosthetic voice restoration. The TEP can even be done as a primary procedure after total laryngectomy and total pharyngectomy when the full circumference of the neopharynx has to be reconstructed, provided the esophagus is still present at the level of the trachea. Since indwelling devices may have a more robust construction, their device-life generally is longer than that of their non-indwelling counterparts. Indwelling devices have the unique advantage in that patient's dexterity plays a lesser role in the daily maintenance of the device. With a few refinements in the surgery of TLE several postlaryngectomy problems can be avoided or diminished such as hypertonicity of the pharyngoesophageal (PE) segment and a poor contour of the stoma. The combination of Heat and Moisture Exchanger (HME) and indwelling voice prosthesis contributes to a significant improvement of both pulmonary function and voice quality. The solution of the majority of prosthesis and TE-fistula related problems by the well trained physician, make prosthetic voice restoration a safe procedure.

Key words: total laryngectomy, voice restoration, indwelling voice prosthesis, heat and moisture exchanger

Słowa kluczowe: całkowita laryngektomia, odbudowa głosu, wszczepialna proteza głosowa, wymiennik ciepła i wilgoci