

Editorial

POSTLARYNGECTOMY SURGICAL VOICE REHABILITATION

Widefield laryngectomy is the gold standard treatment of the indicated laryngeal cancers. It is a functionally destructive surgery but highly successful oncological procedure. The mutilating surgery leaves the patient aphonic and aphasia with altered respiration through a permanent tracheostomy and olfaction because of the bypassing the upper airway. It also leads to a psychosocial disturbances due to lack of communication. Since the first laryngectomy by Billroth in 1874, there are several attempts to restore some sort of voice and rehabilitate the patient.

Several methods were described in literature starting with shunts and fistulas connecting the trachea and the reconstructed pharynx. But, they all failed because of the inherent problem of the leakage of the saliva and gastric contents through the fistula into the trachea making swallowing completely difficult. Esophageal voice or speech has to be learned by the patient but has limitations on the quality of the voice and dysfluency make it a difficult proposition. The credit goes to Drs Eric Blom and Mark Singer of Indianapolis to propose a method of surgical voice restoration by 'Tracheoesophageal puncture' and a valve insertion through the fistula. The one way valve allows air to go through the trachea into the neopharynx and vibrates the reconstructed neopharynx which can be articulated through the intact mechanism and generate speech. The valve also prevents reflux of saliva, food or the gastric contents into the trachea. The valve known as 'Blom-Singer's prosthesis' led to newer concept of prosthetic aided speech in an aphonic patient.

A number of valves were developed after that. Indwelling Groningen's valve paved way to valves which can be left *in situ* for longer periods but did not stand the test of time. Then came the Provox voice system developed by Prof Hilgers in Amsterdam is available as indwelling and nonindwelling varieties. The insertion is made easier by the Trocar and cannula supplied by the makers. 'Provox voice prosthesis' has become more popular in the present days. Newer Provox Vega prosthesis offers much more benefits.

The tracheoesophageal puncture otherwise known as TEP is a simple procedure done as primary procedure immediately at the time of laryngectomy or as a secondary procedure after the wound healing occurred and followed by postoperative radiation therapy, if necessary. The secondary TEP gives the surgeon an opportunity to operate on a dedicated patient and also have a second look into the neopharynx.

The technique was introduced in India at Manipal by Dr Hazarika and myself way back in 1986 after having the privilege of getting the necessary training at Indianapolis under the pioneers of the TEP Dr Blom and Singer on a fellowship. Now surgical voice restoration by TEP and prosthetic aided speech rehabilitation has become the gold standard treatment for laryngeal cancers. There were efforts in India for developing the indianized valves at Manipal and Nagpur. Golhar's valve is now available in India at a low cost with a good efficacy.



PSN Murthy
Editor-in-Chief