

Laryngeal Cancer Surgery-Through the Years

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Laryngeal carcinoma is not without victims who are great men. The most prominent of whom being the Crown Prince Friedrich Wilhem of Prussia (1831–1888). Other prominent figures include Sammy Davis Jr. (1925–1990) and George Harrison of the Beatles (1943–2001).

Theodor Billroth in 1873 is acknowledged to be the first to do a successful total laryngectomy. Despite its drawback in terms of complications and loss of voice, total laryngectomy became the standard of care for cancers of the larynx in the early 1900's.

Solis-Cohen was the first to achieve a long-term cure of a glottic cancer, by means of a transcervical vertical partial laryngectomy reported in 1869. In 1886, Fraenkel reported the first successful transoral (mirror-guided) treatment of an early vocal fold cancer. In 1912 Killian reported suspension laryngoscopy, which allowed for bimanual endolaryngeal surgery.

Soon after, laryngeal conservation surgery techniques were developed like laryngofissure, hemilaryngectomy (Ogura 1955), CO₂ laser resection (Jako and Kieinsasser in 1966). Supracricoid laryngectomy was first introduced in Vienna in

1959 by Majer and Reider and was introduced in the United States in the 1990's.

Parallel to the development of these new surgical techniques came the development in radiotherapy, from cobalt to linear accelerator, and of late, the IMRT and IGRT.

Because of issues of "mutilation" following total laryngectomy (loss of voice and permanent tracheostoma) the use of chemoradiation evolved with the VA study (1991) at the forefront. This compared patients who underwent surgery plus radiotherapy versus induction chemo/radiotherapy with or without surgery or radiotherapy. Results of this study showed no significant difference on the over-all survival and disease free survival between these two groups of patients. Chemoradiation therapy therefore, was deemed to be a good alternative for surgery. It has its own side effects though, such as severe dysphagia.

Newer chemotherapeutic drugs, which are potent enhancers of tumor radio response with lesser toxicity like taxanes and drugs, which target EGFR like cetuximab and other tyrosine kinase inhibitors like lapatinib are showing great potentials.

Is laryngeal transplant a possibility?