

**PARTIAL FRONTOLATERAL
LARYNGECTOMY (SUBTOTAL
LARYNGECTOMY) WITH EPIGLOTTIC
RECONSTRUCTION**

**Le Minh Ky; Pham Van Huu; Nguyen xuan
Quang; Nguyen Dinh Phuc
Oncology Center , National ENT Hospital**

OVERVIEW

- For early stage laryngeal cancer, the surgical treatment must achieve the goal of removing the tumor but retaining laryngeal function.
- This function includes breathing function, pronunciation function and swallowing function
- According to the American Joint Committee on Cancer (AJCC), early-stage glottic carcinoma can be defined as a T1 or T2 tumor without nodal involvement or distant metastasis.



OVERVIEW

- The prognosis of early stage glottic carcinoma is favorable, but controversy subsists concerning treatment.
- Proposed techniques include external radiation therapy, conventional open surgery (e.g., laryngofissure, hemilaryngectomy, supracricoid laryngectomy), and trans oral laser excision.



TRANSORAL CO₂ LASER MICROSURGERY (TLM)

- TLM represents:
 - Less invasive
 - More precise,
 - More functional surgery
 - Acceptable voice quality.
 - Lower morbidity
 - Better quality of life .
 - Avoidance of tracheostomy,
 - Shorter periods of hospitalization.
 - Low costs.
- Transoral CO₂ laser microsurgery (TLM) has evolved as an optimal therapy for laryngeal cancer .



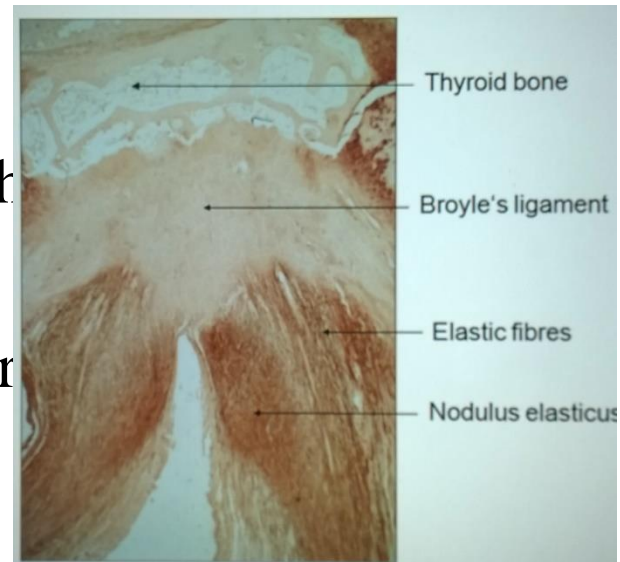
THE ANTERIOR COMMISSURE

The risk of tumors that involve the anterior commissure.

Increased risk of tumor relapse:

- Capacity of tumors to infiltrate the thyroid cartilage at the anterior commissure, having no perichondrium
- The considerable difficulties → correct endoscopic exposure;

Image (CT, MRI)



OVERVIEW

- Laser microsurgery is the method of choice for the treatment of early glottic cancer with regard to oncologic, functional, and economic aspects
- The role of laser microsurgery in the treatment of laryngeal carcinomas with vocal cord impairment or fixation cannot yet be definitively assessed on the basis of the current literature.

Petra.Ambrosch. Functional organ preservation in laryngeal and hypopharyngeal cancer Head and neck 2011 vol 10

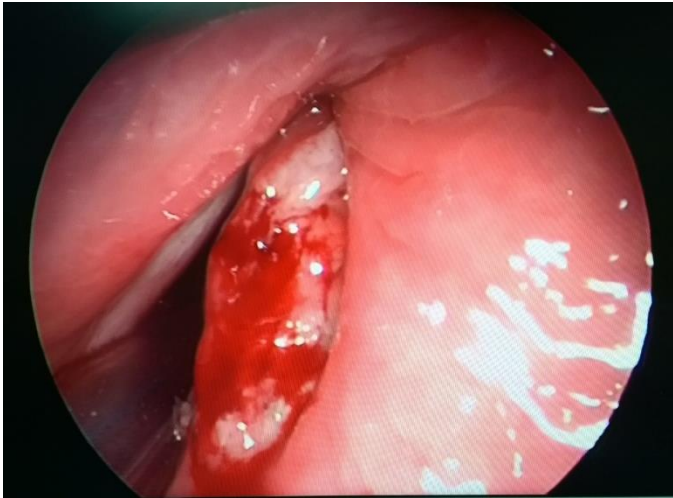
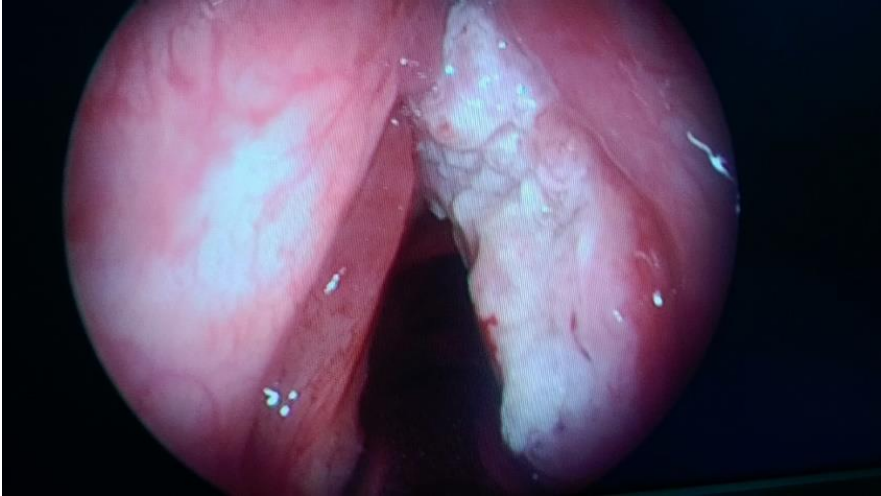


PREOPERATIVE EVALUATION

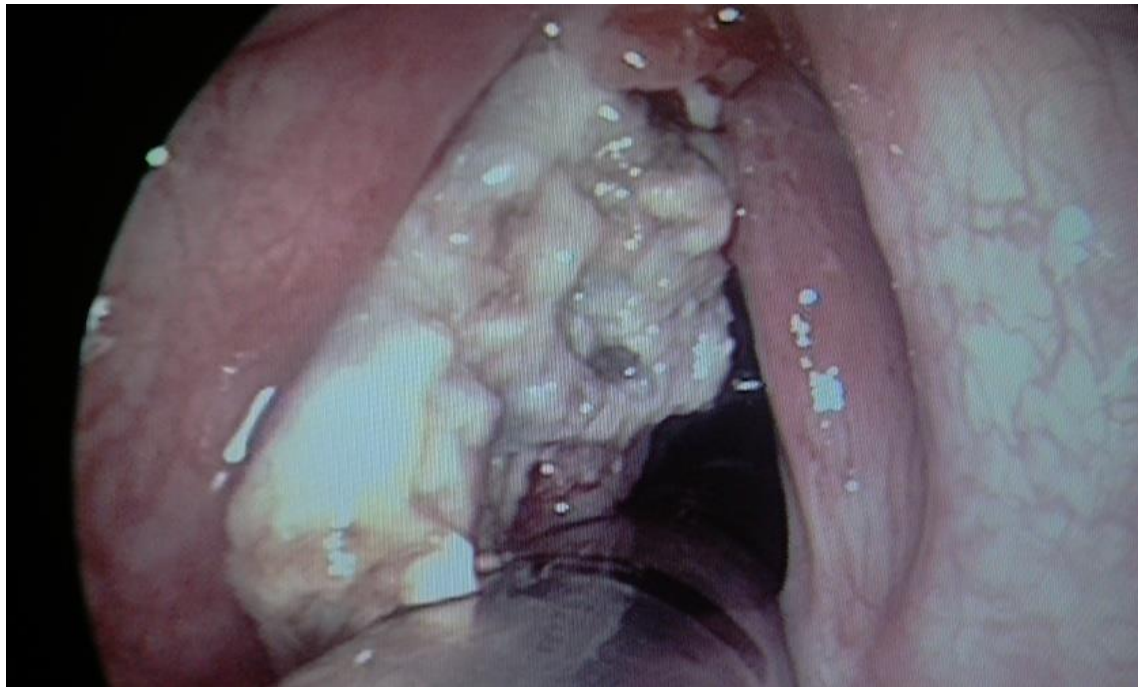
DIRECT ENDOSCOPY/GA



PATIENTS



PATIENTS



- TLM is Alternative to open conservative surgery or not?



OPEN CONSERVATIVE SURGERY

- Open surgery for T2 tumor is indicated for cases where the tumor is not fully revealed under microsurgery.



RADIATION

- For laryngeal cancer T1 and T2 N0, the rate of local control after radiotherapy varies from 75 to 85%, if the patient has a relapse often requires surgical removal of the entire larynx. (*Kelly DM, Hahn SS, Spaulding AC, Kersh CR, Cantrell RW. Definitive radiotherapy in the management of stages I and II carcinoma of the glottis. Ann Otol Rhinol Laryngol 2000; 98: 235–239*)
- Radiation treatment is difficult for large-volume tumors, can cause cartilage necrosis, also for neck lymph nodes. High cost



RADIATION

- Chen et al. compared radiation and surgical treatment for laryngeal cancer T2 N0, for radiation is 59% and 68% for laryngeal conservative surgery (*Chen AY, Pavluck A, Halpern M, Ward E. Impact of treating facilities' volume on survival for early-stage laryngeal cancer. Head Neck 2009; 31: 1137–43.*)



OVERVIEW

- Therapeutic strategy for more extensive T1b or T2 lesions is much more controversial.
- Invasion of the anterior commissure or arytenoids, paraglottic space lowers the local control rate to approximately 75%. These findings support the use of partial laryngectomy as the best means of preserving laryngeal function in selected patients



OVERVIEW

- A variety of partial laryngectomy and reconstruction techniques have been proposed.
- Choice depends on extension and location of the lesion as well as on preferences at each surgical center.
- The most widely used procedures are vertical hemilaryngectomy and supracricoid laryngectomy.

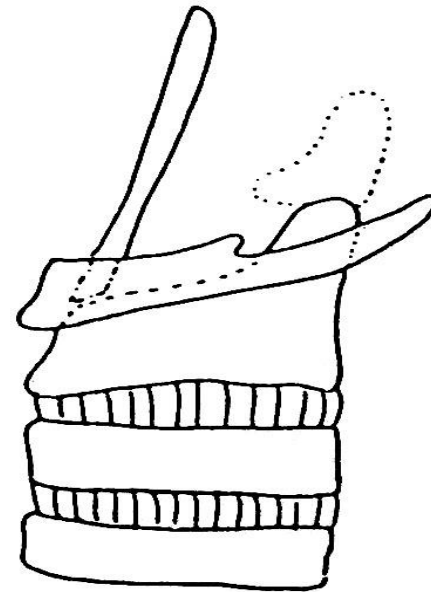
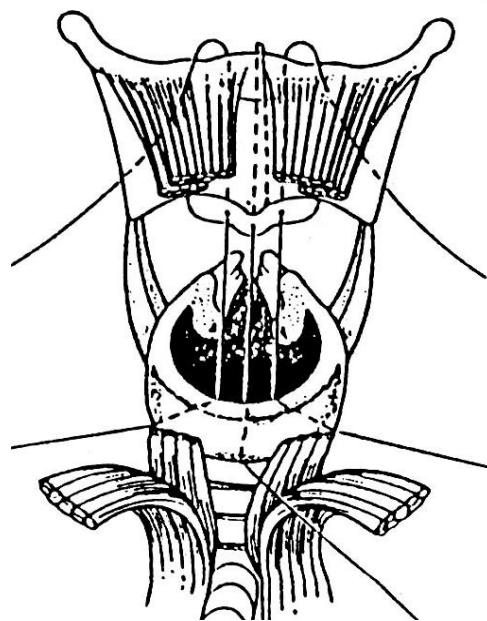
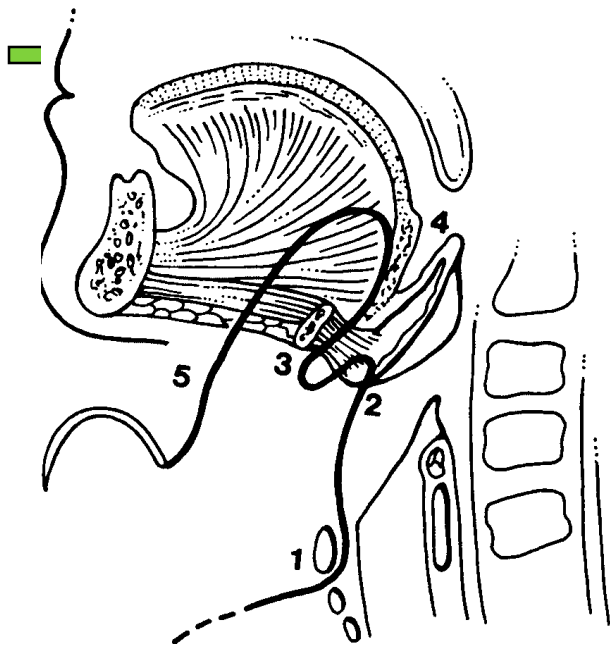
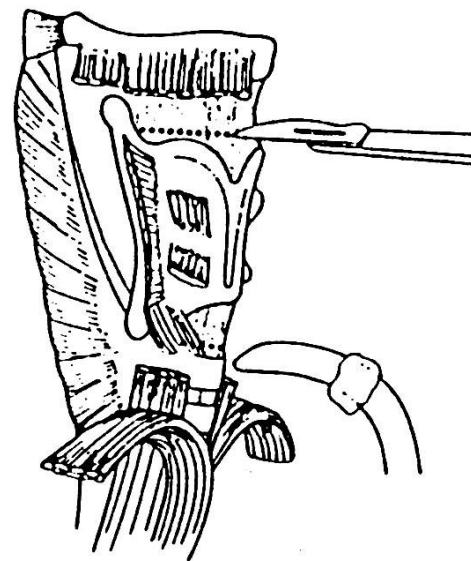
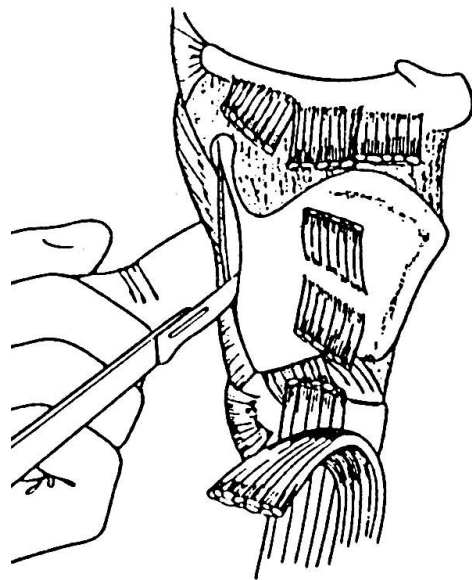


SUBTOTAL LARYNGECTOMY WITH C.H.E.P

- Laryngeal reconstructive resection (Majer-Piquet surgery) was first reported in 1974. (subtotal laryngectomy with CHEP).
- Surgery includes cutting cartilage cartilage, 2 false and true vocal cords, paraglottic space, conserving at least one arytenoid. Reconstruction with CHEP
- Currently still applicable



C.H.E.P MAJER-PIQUET



- The technique most commonly used for T2 glottic cancer (supracricoid partial laryngectomy or subtotal laryngectomy)
- Limitations of conservative surgery:
 - - The general condition of the patient
 - - The tumor invades up or down the glottic
 - - Aspiration

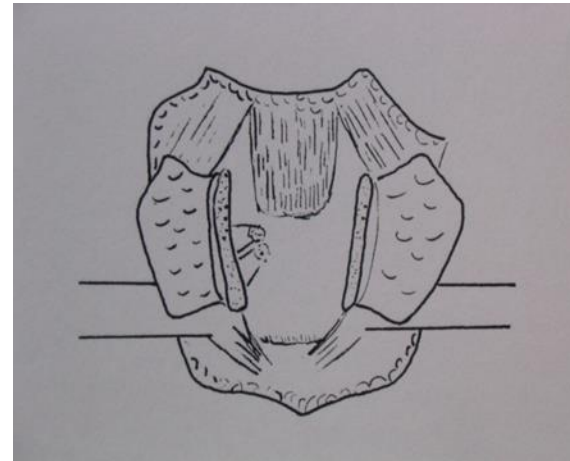
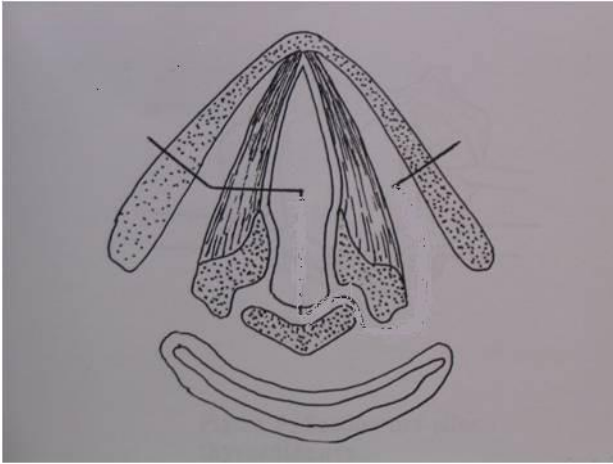


PARTIAL FRONTOLATERAL LARYNGECTOMY WITH EPIGLOTTIC RECONSTRUCTION

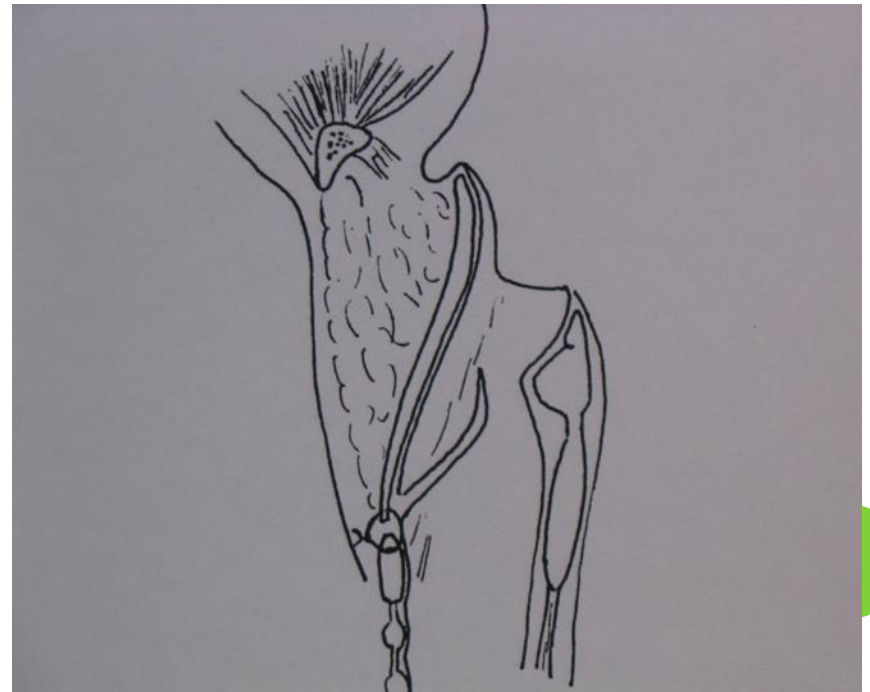
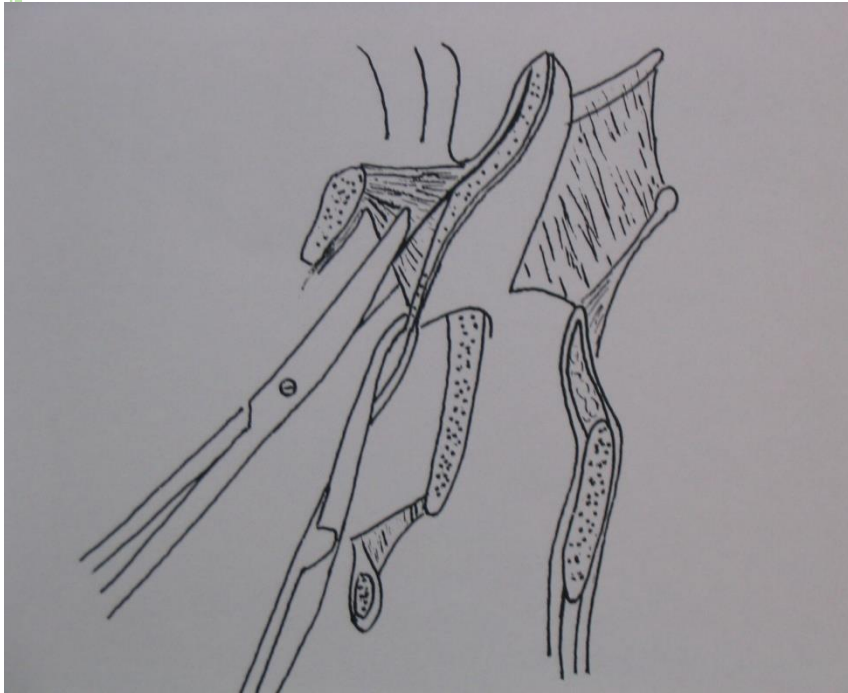
- Partial frontolateral laryngectomy with epiglottic reconstruction was described by Tucker et al. in 1979.
- Tucker's laryngectomy or F.L.L.E is for early stage laryngeal cancer T1. (Vertical partial laryngectomy)



PARTIAL FRONTOLATERAL LARYNGECTOMY WITH EPIGLOTTIC RECONSTRUCTION



PARTIAL FRONTOLATERAL LARYNGECTOMY WITH EPIGLOTTIC RECONSTRUCTION

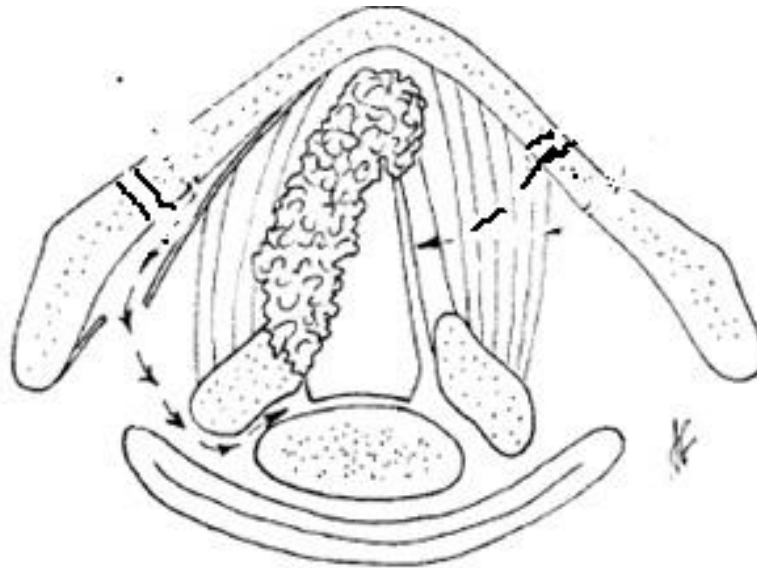


SUBTOTAL LARYNGECTOMY WITH EPIGLOTTIC RECONSTRUCTION

- Several groups have reported results using PFLER for management of selected cases of T1 and T2 laryngeal carcinoma
- We do extension to paraglottic space or arytenoid (if necessary)



SUBTOTAL LARYNGECTOMY WITH EPIGLOTTIC RECONSTRUCTION



- Subtotal laryngectomy



INDICATION

Currently, for T2 laryngeal cancer and selective T3 (Subtotal laryngectomy with epiglottoplasty).

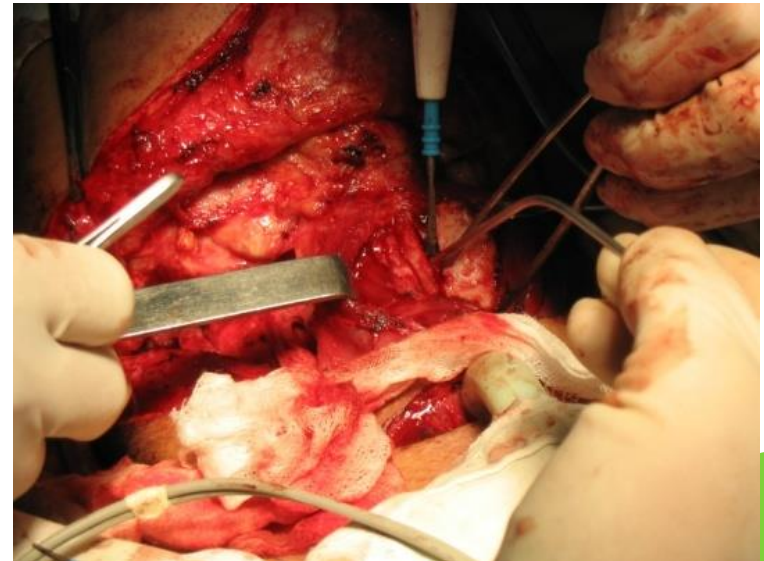
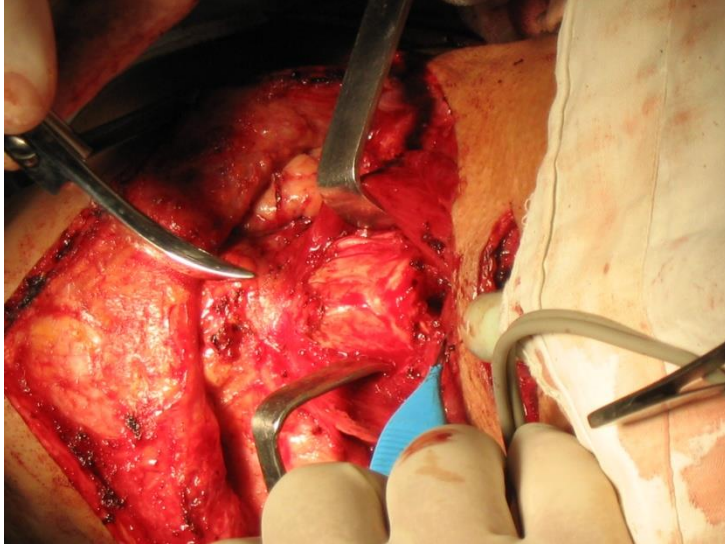
Surgery to keep the larynx function after cutting near the entire larynx



- At Timone Hospital, Marseille, France. Classic CHEP surgery and hemi-laryngectomy are no longer performed, most T2 patients have Tucker surgery (*Antoine Giovanni, MD, PhD; Bruno Guelfucci, MD; Régis Gras, MD; Ping Y phâu u, MD; Michel Zanaret, MD* *Partial Frontolateral Laryngectomy With Epiglottic Reconstruction for Management of Early-Stage Glottic Carcinoma* *The Laryngoscope. 2001*)



OPERATIVE TECHNIQUE



OPERATIVE TECHNIQUE



OPERATIVE TECHNIQUE



The epiglottic flap is fixed to cricoid with multiple interrupted sutures

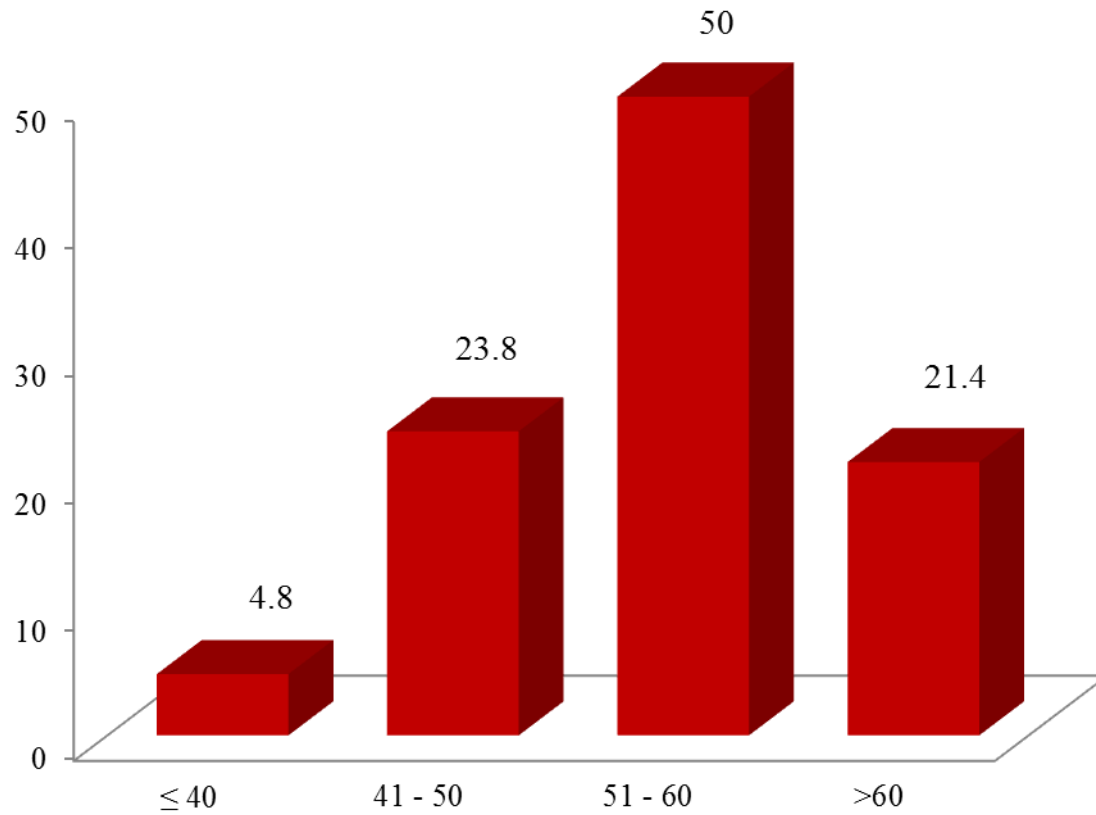


Our Patients:

❖ 42 The patients were diagnosed laryngeal cancer, had subtotal laryngectomy with epiglottic reconstruction from January 2012 to 2015. Sep. at National ENT Hospital of Vietnam.



AGE DISTRIBUTION



T stage	n	%	p
T1b	7	16,7	0,000
T2	31	73,8	
T3	4	9,5	
N	42	100	



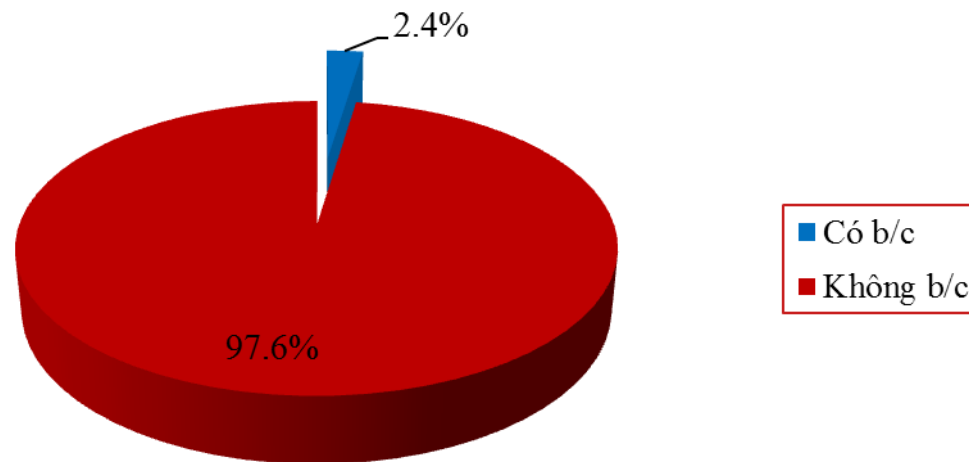
Arytenoid	n	%
Intact arytenoid	31	73,8
arytenoidectomy	11	26,2
N	42	100



Neck dissection	n	%
Yes	30	71,4
No	12	28,6
N	42	100



BLEEDING COMPLICATION



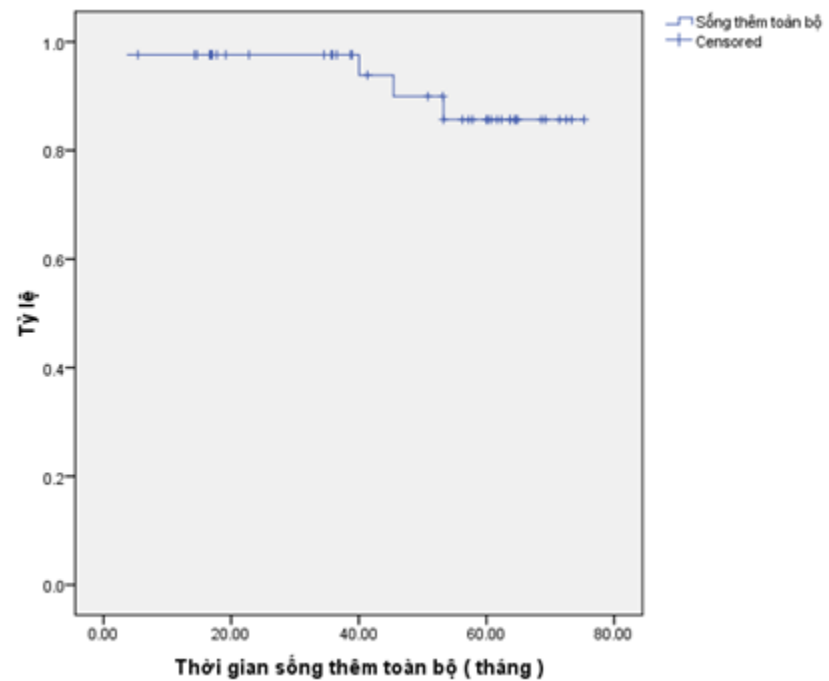
Sequela	n	%
favorable	39	92,9
Excessive mucous membrane	2	4,8
Difficult decannulation	1	2,4
Tổng	42	100



Radiation	n	%
Post op Radiation	9	21,4
No radiation	33	78,6



year	Pts	OS	Time of OS (month)
>3	41	97,6%	Average: 70,1 ± 2,4
>5	38	85,7%	Min: 3,6 Max: 75,3 95% CI (65,3 – 75,0)



CONCLUSION

- The subtotal laryngectomy with epiglottic reconstruction allows the restoration of the larynx's function.
- Indicate mainly to T2 stage.
- Surgery deserves an important place in laryngeal cancer treatment



A Dreamy World

A man's dreams are an index to his greatness

THANK YOU FOR YOUR ATTENTION!

