TOTAL LARYNGECTOMY - PATIENT INFORMATION SHEET

Cancers of the head and neck are treated by the Head and Neck Onco-Surgeon. Cancers can occur anywhere in the head and neck that is lined with mucous membranes, the moist pink lining inside our noses, mouths, and throats. One such structure is the larynx (voice box). The larynx is the organ in the neck that creates voice. It is also intimately involved in swallowing and breathing. Benign (non-cancerous) and malignant (cancerous) growths can occur in and around the larynx.

• Total laryngectomy is an operation performed to remove the entire larynx in cases of very advanced larynx cancer **Stage III/IV**

• While always striving to preserve the larynx whenever possible, there are times when this structure needs to be removed due to the severity of the cancer or perhaps because it has recurred after other forms of therapy such as CTRT /RT.

• In some cases, the larynx is not functioning properly after other treatment, leading to breathing/swallowing/aspiration- **"DYSFUNCTIONAL LARYNX"-**In these instances, it is safer to remove the larynx as patient might end up aspirated and develop severe lung complications over time.

• Most larynx cancers develop as the result of chronic tobacco and alcohol use, and are called squamous cell carcinomas.

The most common signs of Laryngeal cancer are

1. Hoarseness,
2. Coughing up blood,
3. Throat pain, ear pain, difficulty with or painful swallowing,
4. Shortness of breath.
5. A neck mass

Like all cancers, the steps in diagnosis include

1. 90 degree endoscopy
2. Endoscopy guided biopsy -Under LA with Biopsy sent for Frozen/regular HPE
3. DLScopy Biopsy : The DLScopy biopsy is often preferred as it allows to closely inspect then remainder of the throat assess the larynx and make the subtle difference in staging and also to evaluate the spread of the tumour to surrounding structures (pharynx), trachea (windpipe), and the esophagus, which is involved with swallowing. A close inspection of the entire throat and upper airway is important since there is a 2-3% chance of having a second tumor in one of these areas.

The radiological assessment for staging purpose .

1. CECT of neck , thorax
2. PETCT
3. MRI

In case the biopsy is done elsewhere then the slides can be brought to confirm the diagnosis mandatorily before going forward.

The final stage is based on Clinico-radiological staging as per ASCO and NCCN guidelines. Once the stage of the tumour is understood, all treatment options will be discussed. In general, there are three forms of therapy for larynx cancer.
Surgery (One time sitting/cost effective)
Radiation therapy (1.5-2 months treatment)
Chemotherapy (given with Radiation and takes multiple cycles 1.5-2 months)

Early stage cancers will often only require one of the forms of therapy, usually either surgery or radiation therapy.
For certain types of or for advanced stage cancers, ideally Surgery is preferred as the chance disease removal is high with surgery unlike Chemotherapy or radiation therapy where in the tumour removal is 75-80 % only.

POST SURGERY CONCERNS

1. Healing of the stitches over the skin and the food pipe (pharynx) is utmost important. The healing is very much delayed in case of post radiation or post chemo radiation settings
2. Multiple times suturing is required in case the sutures are given away
   Sometimes in case the pharyngeal stitches are given away then restoring is being done under LA/GA

POST SURGERY REHABILITATION

Multiple health care providers may be involved in your care.
1. Primary surgeon/ specialists.
2. Speech therapist.
3. Swallowing therapist
4. Physiotherapist

This discussion is about total laryngectomy and about laryngeal cancer is discussed elsewhere in
our website.
If the tumor in your larynx has spread into the lymph nodes in your neck, a neck dissection (removal of the neck lymph nodes) might be recommended for one or both sides of your neck. Total laryngectomy will result in a loss of the natural voice, and creation of a permanent breathing hole in the lower neck called a tracheostoma. Several options for voice rehabilitation will be offered. The surgery physically separates the swallowing function from the breathing function and after total laryngectomy, it is expected that patients will be able to tolerate a normal or near normal diet.

The indications and risks of surgery, as well as expected outcomes, must be understood prior to proceeding with your surgery against Chemotherapy or combination of Chemotherapy+ radiation therapy .

Intended benefits and expected outcomes of Surgery

1. Complete removal of malignant tumour involving the larynx and a part of the Hypopharynx (food pipe)
2. There will be loss of/reduction of smell and taste, as air will **not pass** through the nose when breathing.
3. There is a chance that tissue from another part of your body will be needed for reconstruction of the food pipe, the decision will be taken during surgery and will be communicated to the patient relatives and patient prior to surgery if need would arise.

Risk/Complications that can occur

1. Bleeding – heavy bleeding is rare, if this occurs you may need blood transfusion.
2. Infection – 10-30% risk.
3. Pharyngo-cutaneous fistula – if this occurs you may need additional surgeries to repair, and may prolong your hospitalisation / recovery. But the chances are very less in view of advanced surgical techniques in the current era.
5. Hypothyroidism - low thyroid function would need daily pill to replace.

After the procedure

1. You will permanently breathe through the new opening in your neck, which is the upper portion of your trachea.
2. You can expect around 1week hospitalisation after surgery.

You cannot eat by mouth for 1 to 3 weeks. A Ryle Tube feeding will provide nourishment.
As healing progresses rehabilitation will be undertaken.

Alternatives to Total Laryngectomy

1. Radiation therapy.
2. Chemotherapy.
3. Symptomatic palliative treatment (non-curative treatment/comfort measures)
4. No treatment: consequences of no treatment are progression of tumour and death.

As with any type of surgery, the risks of *anaesthesia* such as drug reaction, breathing difficulties and even death are possible. Please discuss these risks with your anaesthesiologist. Fortunately, with this procedure, anaesthetic problems are exceedingly rare.