ENDOSCOPIC LASER SURGERY

This information leaflet is to support your decision with your Specialist.

This leaflet will explain what the throat, voice box, and gullet are and what surgery can be offered for conditions affecting them. Before you agree to any treatment, you will always have an opportunity to discuss your procedure and raise any concerns or questions.

WHAT IS TRANSORAL LASER SURGERY?

Trans-oral laser surgery is a conservative surgical procedure used for the removal of early lumps or tumours from the voice box (larynx) or throat (pharynx).

A special tube containing a camera and light (endoscope) is placed in the mouth and a CO2 (carbon dioxide) laser beam is directed at the lump or tumour using a microscope. The surgeon uses the laser to remove the lump or tumour either in one piece, or smaller pieces, until the entire tumour is removed. These tumours can be benign or non-cancerous, or malignant- cancerous growths (carcinoma, lymphoma or sarcoma). Your surgeon will advise you about the nature of the lesion.

The procedure is performed under general anaesthetic and so you will be asleep throughout the operation.

FUNCTION OF THE THROAT WINDPIPE AND GULLET

The throat consists of the voice box (larynx), throat (pharynx) and breathing passages such as the windpipe (trachea) and lower airways (bronchi). The gullet (oesophagus) is the swallowing tube that connects the throat to the stomach. They are used for normal, breathing, swallowing and speech. In addition the voice box also protects the lungs from the passage of food or liquid during swallow. The throat or pharynx is the common site for all these functions.

Occasionally diseases can affect these structures and cause them to have pain, or not work well. So you may have a husky voice, painful and difficult swallow, or difficulty with breathing.

WHY HAVE TRANSORAL LASER SURGERY

This specialised surgery helps to deal with tumours of the throat, windpipe or gullet. Your disease will have been discussed with other members of the head and neck cancer multidisciplinary team where suitability for various treatment options are considered. If you do not wish to have this surgery, you may wish to have other treatment. These will be discussed with you in the clinic. Alternative treatment may include chemotherapy and or radiotherapy if the tumour is malignant, or open surgery where a cut (incision) is made in the neck or face to allow the lump or tumour to be removed.

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BENEFITS OF TRANSORAL LASER SURGERY

- Less swelling and scarring occurs to tissues
- Greater preservation of normal tissue
- Reduced risk of infection
- A tracheostomy (insertion of a tube below the throat to aid breathing) is generally avoided
- As the laser is passed via the mouth you will not have a neck wound

HOW IS THE OPERATION DONE?

An ENT surgeon will usually discuss the nature of the surgery and obtain consent to allow us to proceed to the surgery. You may be admitted to the hospital either the night before or the morning of the surgery. A general anaesthetic is used to make you fall asleep during the whole procedure.

As for all rigid endoscopic surgery you will be asleep under a full general anaesthetic. The nature of breathing will be through a small tube that is passed into the windpipe or by the passage of a jet of air or oxygen through the telescope into the larynx and trachea (airways). You will be lying on your back with your head on a stabilising head ring and there may be a roll placed under the shoulders. The mouth will need to be fully opened and the head will need to be extended on the neck to allow for a straight line view of the area to be evaluated and treated. The surgery takes some time to be performed, and the surgeon may wait for biopsy results to come back from the laboratory whilst you are asleep, (a frozen section) to ensure all areas of disease are cleared during the surgery. Your surgeon will advise you of the need for this as it will prolong the length of the surgery.

POSSIBLE COMPLICATIONS

There are some risks that you need to be aware of prior to giving consent for surgery. The potential complications are uncommon. Listed below are some of the problems associated with surgery, This is not a comprehensive list of the complications associated with surgery but does cover most problems including rare ones associated with this procedure. If you wish to discuss further specific issues, please do not hesitate to do so with your doctor.

Gum/lip trauma

There is a risk of bruising or damage to the lips, gums or teeth as the endoscope passes through the mouth.

Dental damage

There is a small risk of damage to the teeth or crowns. These are usually protected with a gum shield but if any teeth are already loose they may be lost during this procedure as the rigid endoscope may put pressure on the teeth.

Rresidual disease

The procedure aims to clear the tumour, this may be unsuccessful if there is a lot of tumour or if it reaches sensitive areas. Sometimes tumours can grow and spread in unusual ways (skip lesions or discohesive) this can lead to small areas of residual disease. Ocassionally the same operation is repeated a few weeks later as a planned procedure to ensure all the disease is removed. This may be combined with surgery to remove disease from the neck as tumours may sometimes spread to the lymph nodes (glands) of the neck.

Bruising

There may be some damage to the back of the throat which causes bruising, swelling or pain. This is usually temporary and settles quickly after surgery.

Neck Injury

The neck may be rarely strained or sprained after the surgery. If you have any spinal or neck problems let the surgeon know so that they can take care of your neck during the surgery.

Perforation

Rarely, the soft tissues of the gullet (oesophagus) and throat (pharynx) may be torn or may expose other areas- after surgery causing leakage, with the potential for serious infections into the neck or chest. You will not be allowed to eat or drink if this should develop and may require a period of a stay in the hospital until the area has healed. Other treatments may be necessary to seal the leak.

Chest complications

If blood or other debris enters the chest during the procedure there is the potential for a chest infection or breathing difficulties. You may be prescribed antibiotics or chest physiotherapy to help clear the secretions. This is uncommon.

Jaw problems

The jaw may feel sore – this is due to the mouth being opened for the duration of the procedure- it usually settles quickly and is rarely a problem. If you have a jaw problem let the surgeon and anaesthetist know before surgery.

Nerve injury

Rarely nerves to the tongue may be bruised or injured or even removed if the tumour lies near the nerve- this may affect tongue movement or sensation.

Tracheostomy

Very rarely a tracheostomy may be required during or after the surgery if the airway becomes obstructed or if there is a significant risk of obstruction. This is a life

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preserving procedure. It involves the insertion of a breathing tube into a cut or incision in the front of the neck to allow a tube to be inserted into the windpipe (trachea) below the Adam's Apple, bypassing the mouth and nose.

POSSIBLE SYMPTOMS FOLLOWING YOUR OPERATION

Following your operation you are likely to require a short stay in hospital. You may also experience some of the following effects:

- Hoarseness or loss of voice
- Some soreness, especially when swallowing or talking
- Some difficulty swallowing foods and/or fluids
- Some neck stiffness, or a feeling of a lump in the throat, particularly when swallowing.

Voice Changes/Difficulties

Voice changes are usually mild to moderate, however if the vocal folds (vocal cords) have been treated with laser cut or resection you may find your voice quality is affected.

You may have been told by your doctor to rest your voice completely. This is to allow the lining of your vocal folds to heal. Voice rest means that you should not use your voice at all for 48 to 72 hours. This includes no whispering, humming or gargling. Non-speech sounds such as coughing, throat-clearing, laughing and crying should also be minimised. Minimal voice use should be maintained for at least a week after surgery, your surgeon may suggest longer period depending on the surgery.

Swallowing Difficulties

You may experience difficulty swallowing foods and/or fluids following your operation due to soreness, pain and changes to your sensation.

A feeding tube (nasogastric tube) may be required in the early days following your surgery to prevent you aspirating food/fluids in to your lungs. A speech and language therapist will assess your swallow function and provide advice regarding the need for tube feeding, modification of foods/fluids and your swallow recovery.

POST-OPERATIVE CARE

You may need antibiotics and painkillers to allow the area to heal and to get back to normal swallowing and speech.

Your progress following surgery will be closely monitored by both your surgeon and speech & language therapist.

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