

## **SIVUH Department of Otolaryngology PAROTID INFORMATION SHEET.**

### **Parotid swellings**

The parotid gland is a large salivary gland located on each side of the head in front of and just below the ear. Swelling of the parotid gland commonly occurs in response to infection (e.g. mumps), calculi (stones blocking the outflow of saliva from the gland), or tumours. Most swellings which persist for more than a few weeks represent tumours.

The vast majority (> 80-90%) of parotid tumours are benign. Most of these are tumours called pleomorphic adenomas. A small proportion of parotid tumours are malignant (cancer).

Fine needle aspiration cytology (FNA) is a procedure in which a very small needle is used to take a few cells from the swelling which are then submitted for examination in the pathology laboratory. This can usually give a good idea whether one is dealing with a benign or malignant (cancerous) tumour. However, analysis of FNA samples from the parotid gland can be very challenging. In particular, it is very easy to misinterpret a cancer as being a benign pleomorphic adenoma.

Patients with persistent swellings of the parotid gland are generally advised to undergo surgery, even if the FNAC is benign. The reasons for this are as follows:

1. There is a small (ca. 10%) chance that the FNAC is wrong, and the tumour is actually malignant.
2. If pleomorphic adenomas are not operated on, there is a risk (ca. 5%) that over a long period of time, they can become malignant.
3. Removal of a parotid tumour is easier when the tumour is small, but is much more difficult with increased risk of damage to facial nerve as it becomes larger.

### **How it is performed:**

An incision is made just in front of the ear and joining a neck crease. The incision usually heals very well with time and in most patients is barely visible. Because the facial nerve goes right through the parotid gland and is at risk during surgery, it is important to find the main trunk of this as it enters the gland, and then follow it and all its branches right through the gland, to ensure that it is preserved intact during the surgery. The parotid tumour with a cuff of surrounding parotid tissue is then removed. A drain is placed to drain any excess fluid or saliva which builds up post-surgery.

### **What I can expect post-surgery:**

You will be numb on your ear and side of your head when you wake up. There will be a drain in place which is generally left for 2-3 days. Stitches are removed after one week. The scar heals up very well. Depending on the amount of parotid tissue removed, you may have a "hollowness" on side of the face operated on.

After the surgery, you should avoid any activities using the upper body (manual work, lifting, swimming, tennis etc.) for 2 weeks.

### **What are the risks?**

#### **1. Injury to the facial nerve:**

The facial nerve runs through the parotid gland and divides into 6 or so branches which supply the muscles of facial expression. Tumours of the parotid gland may commonly be closely applied to the branches of the facial nerve. In addition, the tumour can displace the nerve or its branches in unexpected directions.

There is a very small risk (<1%) of inadvertently causing a complete injury to either the main trunk of the facial nerve or one of its major branches. Depending on the branch involved, this is likely to lead to weakness of the face, which may include inability to close the eye; inability to wrinkle the forehead; and / or asymmetry of the lower lip.

More commonly, the main trunk of the facial nerve and all its branches are preserved fully intact. However, because of stretching / trauma / electrical current transmission during the surgery, the nerve does not function normally in the immediate post-operative period. This may lead to a variable degree of weakness which may last anywhere from days to months. However, as long as the nerve is fully intact, you can be reassured that function will return to full normality with time.

On very rare occasions (<0.5%), your surgeon may unexpectedly find during the surgery that there is tumour invading the facial nerve and it is not possible to remove the tumour and preserve the nerve without leaving an unacceptable amount of cancer behind. If this occurs, your surgeon may have to make a decision on the table to deliberately sacrifice the facial nerve in order to completely clear the cancer. In this scenario it is possible that your surgeon will also attempt to reconstruct the nerve at the same time which may involve harvesting a nerve from your leg, which would leave a scar and numbness on your leg.

2. Bleeding into the wound. Risk 1%. If this occurs, you will be brought back to the operating theatre so that the blood clot can be removed and any bleeding stopped.
3. Seroma / salivary fistula: In around 10% of patients, after removal of the drain, the wound may slowly swell due to accumulation of body fluid or saliva. Alternatively saliva may leak out the wound while eating. These complications are more of an annoyance and nearly always resolve within 6 weeks. They are usually treated by drawing any fluid off with a needle and applying pressure dressings. Very rarely, the wound may need to be re-opened and a drain re-inserted.
4. Recurrence: The risk of recurrence is 1-2%. Recurrences usually happen several years later. They are difficult cases which require revision surgery, and there is increased risk of damage to the facial nerve.
5. Frey's syndrome: Some patients may notice sweating on the side of the face while eating. This is due to nerves which used to supply the parotid gland growing into the skin and supplying sweat glands. This is rarely troublesome and easily treated if it is a problem.

6. First-bite syndrome: Patients with large or deep tumours may after several months complain of a sharp pain when they start eating, but which resolves completely within seconds. This usually settles and is rarely a cause of long-term distress.
7. Mouth opening: Patients with large or deep tumours may develop some stiffness of the muscles opening the jaw, which could in time lead to limitation of mouth opening. It is important for these patients to perform mouth-opening exercises for 6-8 months after the operation, which will usually completely prevent this problem.
8. Numbness: You will expect a certain amount of numbness on the side of your head after the surgery. Men may need to use an electric razor for a few months in order to avoid cutting themselves. Although the extent of numbness diminishes with time, most patients will have permanent numbness of the earlobe. This is mainly an issue for women who wear clasp earrings, as they will not know if there is excessive pressure or if the earring falls off.
9. Other sensory changes: Many patients will experience other sensory changes of their ear, including possible hypersensitivity to touch, or to cold. Most of these changes settle within a few months. These are rarely a long-term problem as patients usually learn to manage any persistent symptoms.

**Other things you should know:**

1. Negative specimen. Occasionally, a parotidectomy is performed on the suspicion of a benign or malignant tumour, however, after the removed gland is submitted for pathological examination, no evidence of tumour is found.