NHS
University Hospitals
Coventry and Warwickshire
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Head & Neck Department

Sentinel Node Biopsy in Oral Cancer

Please read carefully through this information sheet, which explains about sentinel node biopsy in oral cancer. This leaflet will explain the procedure, tell you how it is performed and will answer some of the questions you may have. The same technique has been used safely for many years in cancers that occur in other areas of the body but this is relatively new in oral cancer.

After you have read this information please ask us if there is anything that is not clear or if you would like more information. If you do decide to go ahead we will ask you to sign a consent form to confirm this, although you are of course free to change your mind at any time.

Introduction

The commonest ways cancer cells spread are by tiny lymphatic channels that drain fluid from the cancer to the lymph nodes around the tumour. The lymph nodes act as a form of filter and catch the tumour cells. The spread is not random but goes first to a single node then later to other nodes. The first node is called the sentinel node. If the sentinel node is free of tumour cells you can safely assume that all the other surrounding nodes are free of tumour cells. The spread of cancer cells to the local lymph nodes is so important that it is customary when removing the main cancer to remove the surrounding nodes at the same time.

This situation has now changed and in some tumours (breast and skin) lymph nodes are sampled for cancer rather than all the lymph nodes being removed. Evidence built up over the last 10 years from multiple studies in hundreds of patients, have shown that there is a reliable technique to identify the sentinel node in oral cancer, and the practise

has been used in the UK since 2005.

In 2016 NICE introduced guidance which recommended that all patients with oral cancer should be offered surgery to the neck to identify if lymph nodes are involved. This was because a large study showed that patients who did not have neck surgery had a poorer overall survival compared with those that did have neck surgery. The two options for patients are either removal of a large number of nodes (called neck dissection) or sentinel lymph node biopsy (removal of only one or two nodes).

What is the purpose of this procedure?

The aim of sentinel node biopsy is to identify the exact lymph nodes, which drain from your tumour. This will vary between individuals but is usually between 1 to 3 nodes. We can then look at these nodes in greater detail in the laboratory to make sure there is no cancer in them. Because they are examined so thoroughly, we can pick up microscopic deposits of cancer (micrometastasis), which may otherwise be missed, and this will help us to decide if you need any extra treatment after your operation, such as radiotherapy.

Why have I been chosen for a sentinel node biopsy?

You have been recently diagnosed with an early cancer and are due to undergo surgery for this. We do not believe the cancer has spread to the lymph nodes from all the tests you have had done and therefore the possible side effects of a neck dissection may be unjustified. However, because it is so important to diagnose and spread of the cancer we would recommend that the sentinel lymph nodes are sampled to ensure that there is no tumour present, as even microscopic deposits can lead to a poor outcome.

Do I have to have a sentinel node biopsy?

Sentinel lymph node biopsy is not the only way to treat the neck. A neck dissection can still be offered if you chose not to have sentinel lymph node biopsy.

What will happen to me if I have sentinel node biopsy?

You will be admitted to the hospital for your scan and may have your operation later the same day or first thing the next day. A very low dose of radioactive tracer will be injected around the tumour in the outpatient department before your operation. The amount of radioactivity from this tracer is lower than used in routine CT scans and is completely removed by the body. You will then have the scans done, which are quick and not painful, although sometimes they need to be done up to 2 hours after the injection. When you are asleep under the general anaesthetic, we inject a small amount of blue dye around the tumour and this combined with the tracer will guide us to the sentinel node. The sentinel node biopsy will not affect the success of your operation in any way.

What do I have to do?

You do not have to do anything special. You will recover from your operation in the normal way.

What are the side effects of sentinel node biopsy?

Sentinel node biopsy has been performed for several years, and there are very few side effects associated with it. These are:

1. Blue dye may stain the urine. We inject blue dye into the tissues around your tumour, and since the dye is removed by your kidneys, for about one day after your operation your urine will be stained blue or green.
2. Hypersensitivity. There have been a few reports of people being allergic to the blue dye. This is more common in people who suffer allergies to other things. If you tend to suffer from allergies, please let us know.
3. Radiation is used during the procedure. The dose is very low and is not associated with any side effects.

What are the possible disadvantages and risks of having a sentinel node biopsy?

Sentinel node biopsy has been shown to be very safe and has a very low complication rate. If the sentinel node is not found within a short time we will not continue to look for it but we will proceed directly with your planned operation. In about 20% of patients the sentinel node will

be found to contain small deposits of tumour cells (a positive sentinel lymph node). If this is the case we would recommend that you should have a further procedure to remove a larger sample of lymph nodes (neck dissection), and you may also require radiotherapy after your surgery.

What are the possible benefits to having a sentinel node biopsy?

During a normal neck dissection about 30-50 lymph nodes are removed and examined by a pathologist for metastasis. Because there are so many nodes it is not possible to examine each one in meticulous detail. There is a standard procedure for examining these lymph nodes which will pick up most metastatic deposits. When the sentinel node is removed we know that this is the node that has the highest chance of metastasis and we therefore examine it extremely thoroughly. Studies have shown that when we analyse the sentinel nodes in this way we are more able to detect even tiny deposits of tumour cells, even down to a few cells. This will help us to tailor your treatment accordingly.

We are trying to refine our treatment regimes so that patients will get exactly the treatment needed to eradicate the cancer and nothing more or less.

What training have staff had in sentinel node biopsy in oral cancer?

Our staff have also been on a training course run by the Royal College of Surgeons of England, and mentored by Professor Mark McGurk from Guy's Hospital London who has been using this technique regularly since 2005. A number of training cases have been performed with audits of the results. Permission to offer this new procedure in the hospital has been granted by the new procedure committee and audit of results of the procedure have been fed back to the committee.

Further Information

If you have any other questions or would like further information, please contact the Head and Neck Department on 024 7696 5685.

Patient Information

The Trust has access to interpreting and translation services. If you need this information in another language or format please contact 024 7696 5685 and we will do our best to meet your needs.

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