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Sentinel lymph node biopsy for melanoma

Skin Unit

Patient Information



NHS

Sentinel lymph node biopsy for melanoma

If you have been diagnosed with a type of cancer called malignant melanoma on the skin, you will be advised by your doctor to have an operation to remove the melanoma completely with a safe margin of normal skin. This is called a **wide local excision**. This is the recommended treatment for melanoma. If melanoma spreads from the skin, the most common place it spreads to first is the lymph nodes (glands) near to the melanoma. You have two options as to how the lymph nodes can be monitored for spread – clinical observation and sentinel lymph node biopsy.

What is active clinical observation and ultrasound surveillance?

If you choose active clinical observation, you will still be advised to have a wide local excision but you will not have an operation on the lymph nodes. Instead, every time you return to the doctors for check ups they will examine your lymph nodes. You will be advised to have check-ups after your surgery. The length of time you will be followed up for and the frequency of your follow ups will vary based on the risk of your initial melanoma. This will usually be every four to six months for the first one to three years. If clinically required, you may also be advised to have either ultrasound scans or body scans. If a lymph node is found to be enlarged or abnormal, usually a fine needle biopsy of the node will be performed to test for spread of the melanoma. If melanoma is detected, you will be offered surgery to remove all of the lymph nodes in that area. This is called a lymph node dissection.

Clinical observation cannot detect very small deposits of melanoma in the lymph nodes and therefore recurrence in the lymph nodes may not be detected as early as with sentinel lymph node biopsy. However, there is no strong evidence showing that sentinel node biopsy lowers the chance of spread or improves survival when compared to clinical observation.

What is sentinel lymph node biopsy for melanoma?

Sentinel lymph node biopsy is a small operation for staging melanoma. Staging means detecting possible spread of melanoma. A sentinel lymph node biopsy may detect if the cancer has spread to the lymph nodes, even if a clinical examination or scans appears to be normal. This will give you and your doctor an indication of the risk of the melanoma spreading to other parts of your body in the future, and discuss with you if any further treatment is recommended.

Sentinel lymph node biopsy is not a treatment for melanoma because there is no strong evidence that it improves overall survival from melanoma when compared to clinical observation. However, it may allow you to participate in clinical trials for new treatments for melanoma.

A negative or clear sentinel node is reassuring because it means that the risk of the melanoma spreading is less than if the sentinel node is positive or involved with melanoma cells. However, even after a negative sentinel node, there is still some risk of the melanoma recurring and you will still require follow-up in the outpatient clinic or with a dermatologist. If you have a positive or involved sentinel lymph node, then you will need to discuss with your doctor whether you have further treatment or have the area monitored for recurrence.

What is involved in the sentinel lymph node biopsy procedure?

The location of the draining lymph node/s is carefully marked out before the procedure using SPECT CT – this involves a visit to the nuclear medicine department of radiology the night before or the morning of your surgery. A nuclear tracer is injected into the site of your melanoma and some images are taken to detect where the tracer travels. Your surgeon can detect the tracer intra-operatively using a special probe.

To further help the surgeon find the sentinel node, a dye is injected into the site of your melanoma at the time of surgery. This helps the surgeon to see the sentinel node.

The surgery is usually a day case procedure under general anaesthetic. Your surgeon will make a small incision over the site of the sentinel node and remove 1–3 lymph node(s). The incision is repaired with stitches or skin clips. A pathologist will then carefully examine the node(s) under the microscope for evidence of melanoma and results are usually available in one to two weeks.

What are the possible side effects and complications of sentinel lymph node biopsy procedure?

Pain and discomfort

This is usually mild. Local anaesthetic will be administered and you may require some simple pain medication for a few days.

Swelling

Occasionally swelling may develop which is associated with a fluid collection (seroma). This may need needle drainage.

Bleeding

Bleeding at the site of the biopsy may lead to a collection of blood (haematoma), which may need drainage.

Wound infection

This is usually treatable with antibiotics.

Lymphoedema

In very rare cases permanent limb swelling can occur.

Allergic reaction

In rare cases, patients can have an anaphylactic allergic reaction to the dye.

Summary of the benefits and limitations of sentinel lymph node biopsy

| Benefits of sentinel lymph node biopsy | Limitations of sentinel lymph node biopsy |
|--|---|
| <p>The operation helps to find out whether the cancer has spread to the lymph nodes. It is more accurate than either clinical examination or scans at finding very small cancers in the lymph nodes.</p> | <p>The purpose of the operation is not to cure the cancer. The purpose of the surgery is to select patients who may benefit from further medical treatment or may be eligible for a clinical trial.</p> |
| <p>The operation can help predict the risk of melanoma recurrence in the future.</p> | <p>Sometimes melanoma can still recur in the lymph nodes even if the sentinel node biopsy of these nodes is negative. Of every 100 people who have a negative sentinel lymph node biopsy, around three will subsequently develop a recurrence in the same group of lymph nodes.</p> |
| <p>Following the operation, you may be recommended to have further medical treatment or be able to take part in clinical trials of new treatments for melanoma. These trials often cannot accept people who have not had this operation.</p> | |
| | <p>A general anaesthetic is needed for the operation. The operation results in complications in between four and 10 out of every 100 people who have it.</p> |
| <p>The operation will usually be done at the same time as the wide local excision.</p> | |

Contact details

Skin Cancer Clinical Nurse Specialist **020 7811 8011**

Alternatively, please call:

The Royal Marsden Macmillan Hotline: 020 8915 6899

You can ring the hotline 24 hours a day, 7 days a week.

Call us straight away if you are feeling unwell or are worried about the side effects of cancer treatments.

This service provides specialist advice and support to all Royal Marsden patients, as well as to their carers, and both hospital and community-based doctors and nurses caring for Royal Marsden patients.

References

This booklet is evidence based wherever the appropriate evidence is available, and represents an accumulation of expert opinion and professional interpretation.

Details of the references used in writing this booklet are available on request from:

The Royal Marsden Help Centre

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No conflicts of interest were declared in the production of this booklet.

Should you require information in an alternative format, please contact The Royal Marsden Help Centre.

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