

Introduction

1. Breast cancer may spread to involve the lymph nodes (LN) in the axilla. Sentinel LN is the first LN to receive lymph from the area of the breast. When tumor cells spread, the sentinel LN is the first to be affected.
2. This operation offers definite diagnosis for axillary LN metastasis that will guide further treatment planning.
3. Success rate of this procedure is >90%. In 5% of patients, there are metastasis in other axillary LN despite the sentinel LN does not contain metastasis.

The Operation / Procedure

1. General or local anaesthesia.
2. A small dose of radioisotope or blue dye is injected around the tumor to localize the sentinel LN.
3. If radioisotope is used, lymphoscintigraphy may be performed.
4. Incision made in the skin crease in the axilla.
5. If radioisotope is injected, a handheld gamma detector is used to localize the sentinel LN.
6. If blue dye is injected, sentinel LN is identified by its blue color.
7. All hot and or blue LN are removed as specimen.
8. Intraoperative frozen section may be done, axillary dissection may proceed if the result is positive.
9. Wound closed with suture.

Preoperative preparation

1. Admit 1 day before or on same day of this “elective” operation.
2. Anaesthetic assessment before operation .Inform your doctors about drug allergy, regular medications or other medical conditions.
3. Keep fast for 6 to 8 hours before operation.
4. Patient may need to go to X-Ray Department for preoperative imaging and localization with the injection of isotope / guidewire.
5. Empty bladder and change to operation clothes before transfer to operating room.
6. Pre-medication, intravenous line and antibiotic prophylaxis may be required.

Postoperative Instruction

A. General

1. Mild throat discomfort or pain because of intubation.
2. Mild discomfort or pain over the operation site. Inform nurse or doctor if pain severe.
3. Nausea or vomiting are common; inform nurses if symptoms severe.
4. Inform nurses if more analgesics are required.
5. Can mobilize and get out of bed 6 hours after operation, usually go home on day 2.

B. Wound care

1. In the first day after operation, patients can have shower with caution (keep wound dressing dry).
2. Stitches or skin clips (if present) will be taken off around 10-14 days.

C. Diet

Resume diet usually 4 hours after anaesthesia, and when taking sips of water well.

Common Risks and Complications

A. Anesthesia related complications

1. Cardiovascular: myocardial infarction or ischaemia, stroke, deep vein thrombosis, pulmonary embolism, etc.
 2. Respiratory: atelectasis, pneumonia, asthmatic attack, exacerbation of chronic obstructive airway disease.
 3. Allergic reaction and shock.
- ** Toxicity of local anaesthetic injected around the site of operation may result in serious complication although rare.

B. Procedure related complications (not all possible complications are listed).

1. Wound pain / Wound infection / Bleeding (may require re-operation to evacuate the blood clot).
2. Hypertrophic scar and keloid formation may result in unsightly scar.
3. Radioisotope carries a small amount of radioactivity. Potential harm to the human body is minimal except in pregnant women. Most of the radioactivities will be removed with the specimen and residual activities left inside the body is minimal after the operation.
4. There is a rare possibility of hypersensitivity leading to anaphylaxis associated with the use of adriopharmaceuticals and blue dye.
5. If blue dye is used, urine may be stained green in 1-2days, discoloration of skin may persist.
6. The following complications though possible but much less compared with axillary dissection: Lymphoedema, nerve injury including long thoracic nerve, thoracodorsal nerve and rarely brachial plexus, injury to the vessels, frozen shoulder and chronic stiffness, numbness over axilla and seroma collection.

Things to take note after discharge

1. Contact your doctor or a nearby Accident & Emergency Department if you find increasing discharge, pain or redness around the wound.
2. Take analgesics prescribed by your doctor as necessary.
3. Resume daily activity gradually (according to individual situation).
4. Remember the dates of taking off stitches/clips in the hospital clinic, and follow-up at the clinic of your doctor.

Further management

Further surgical operation may be scheduled after the pathology of sentinel lymph nodes is available. Adjuvant therapy such as chemotherapy, hormonal therapy, target therapy and radiotherapy may be necessary.

Recurrences

Despite surgical clearance of the cancer, there is still a chance of recurrence of the disease and death. This is dependent on the initial stage of disease at the time of presentation and subsequent progression.

Remarks

This is general information only and the list of complications is not exhaustive. Other unforeseen complications may occasionally occur. In special patient groups, the actual risk may be different. For further information please contact your doctor. Evangel Hospital reserves the right to amend this leaflet without prior notice. We welcome suggestions or enquiries on the information provided in this leaflet. Please contact our Healthcare professionals so that we could follow up and make improvement.

Reference

Hospital Authority: "Sentinel Lymph Node Dissection" (2020)

Smart Patient: http://www.ekg.org.hk/pilic/public/surgery_pilic/surgery_sentinellymphnodedissection_0205_eng.pdf (06-07-2023)