Breast Lymphoscintigraphy

Purpose

Lymphoscintigraphy is a procedure used to identify the sentinel lymph node. This is the first lymph node that cancer is likely to spread to from the primary tumor. The scan helps your doctor to find out which lymph nodes need to be removed and whether cancer cells have spread to those nodes.

Lymph nodes are part of the lymphatic (or lymph) system. The lymph system is a network of small channels, like arteries and veins. They are part of the immune system. Lymph fluid flows through the lymph nodes and throughout the body. Lymph nodes filter the fluid as it flows through them. They trap bacteria, viruses and other foreign substances. This is one of the ways your body fights infections.

The sentinel lymph nodes are the first node through which lymph fluid flows from a tumor. Your doctor will order a biopsy of the lymph node. The biopsy determines if the cancer has spread to your lymph system.

Procedure

There are two parts to the procedure. The first part is performed in Nuclear Medicine. You will receive an injection of a radioactive tracer. A special camera will scan and take images of your body. This tracer identifies your lymph nodes and allows the camera to take a picture. The second part of this procedure occurs in surgery. The doctor will inject a blue dye around your tumor and scan your body with a special device. The dye helps to identify the nodes.

Do not bring jewelry or other valuables. Bring only the amount of money you will need for the day. Keep your cash with you at all times or leave it with family or friends. The hospital is not responsible for any lost valuables.

If you are pregnant or think you are pregnant, or if you are breastfeeding, tell your nurse or doctor.

For the First Appointment

1. Check in at the receptionist’s desk.
2. EMLA numbing cream may be applied around the area to reduce pain of the injection.
3. You will receive an injection of a small amount of radioactive tracer around the tumor site in your breast.
4. Your body will need time to absorb the tracer, so you will be asked to return in 1 hour for images.
5. When you return, you will lie on a flat table under a special camera.
6. Do not move while the camera is taking pictures. Movement may blur the pictures.
7. The camera will take pictures for about 30 minutes.
8. If the lymph nodes have not shown up in the first set of images, you will be asked to return for delayed imaging. Be aware that you may have to return several times if lymph nodes images are not visible.

**During Surgery**

1. After you are under anesthesia, your surgeon will inject a blue dye around your tumor site. The lymph fluid will carry the dye and tracer as it drains to the lymph nodes.
2. Your surgeon will then scan your body with a special device called a gamma probe. The probe helps the doctor to identify the nodes by coloring the nodes blue.
3. Your surgeon will remove the sentinel lymph nodes and send them to pathology to be tested for cancer.

**What to Expect After the Procedure**

The tracer and dye will remain in your body for a short period of time and will be eliminated when you urinate. Your urine may look greenish in color for about 24 hours. Drink extra water to flush the tracer and dye from your body.