Sentinel Lymph Node Biopsy
For Breast Cancer

Lymph nodes are small, round glands found in your body. They are connected by vessels that make up the lymphatic system. Lymph nodes help your body fight infection. They also filter lymph fluid to remove bacteria and cancer cells. Lymph nodes are in your neck, underarms, chest, abdomen and groin areas.

Sentinel lymph nodes are the first lymph nodes that cancer cells spread to from a primary tumor. Breast sentinel lymph nodes are in the axillary lymph nodes. These are under your arm.

Breast cancer patients often have a sentinel lymph node biopsy as part of their breast cancer surgery. This procedure is also called a sentinel lymph node dissection. The results help determine the stage of the breast cancer. Stage describes the severity of the cancer. It is based on the size of the tumor and whether or not the cancer has spread in the body. Staging is needed to plan treatment options. It also helps with prognosis.

Procedure

During this procedure, the doctor finds and removes the sentinel lymph nodes. They are found by injecting a radioactive tracer and/or blue dye into your breast. The tracer and/or dye is carried through the lymphatic vessels to the sentinel lymph nodes under your arm. You are awake for the injection of the radioactive tracer. Blue dye, if needed, is injected while you are asleep or under anesthesia. This is done in the operating room.

While you are asleep or under anesthesia, a probe is used to find the sentinel lymph nodes. This probe detects radioactivity. When dye is used, the sentinel lymph nodes turn blue. A small cut is made under the arm to remove the lymph nodes. They are removed one at a time until all radioactivity or dye is gone. The number of lymph nodes to be removed is not known before surgery. The average number of lymph nodes removed is 2 to 3 but could be more or less. The nodes removed are sent off for more testing to determine if cancer cells are present.
Results

Results may take 7 to 10 days to come back. The results are explained during your post-operative visit. If the results are negative, it is not likely that the cancer has spread to other lymph nodes under the arm. No further surgery to the lymph nodes is needed. If the lymph nodes are positive, another surgery may be needed to remove all of the lymph nodes from under that arm.

Risks

As with any surgery, there are risks. Risks include the following:

- Pain
- Bleeding
- Infection
- Soreness under your arm (axilla)
- Lymphedema of the arm on the affected side
- Temporary limited range of motion
- Shoulder soreness
- Fluid and swelling at the surgical site

The axilla is often more sore than the breast after surgery. A prescription for pain medicine is given. During the pre-op visit, you receive a list of exercises to do after surgery. These exercises are to help with range of motion. Call your doctor if you have any questions or concerns after surgery.

Tell your doctor if you have any of the following:

- More swelling of the axilla or arm
- Increased bruising
- Surgical incision has opened
- Signs of infection which may include:
  - Increased pain or redness
  - Yellow or green discharge
  - Foul odor
  - Fever of 101°F or higher

Resources

Breastcancer.org
American Cancer Society
National Cancer Institute (NCI)
National Institutes of Health (NIH)