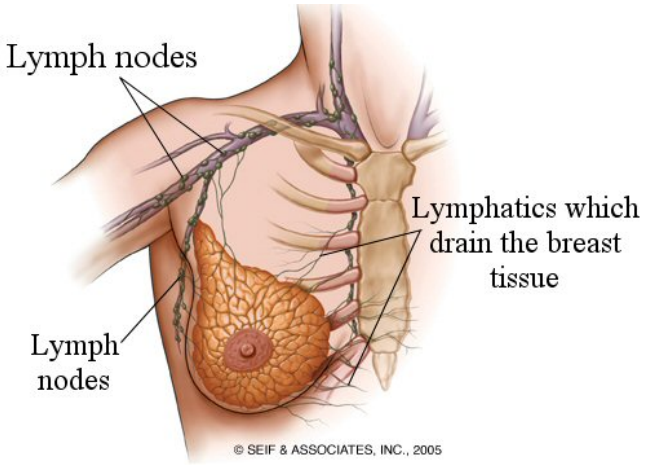
Sentinel Lymph Node Analysis in Breast Cancer Treatment

WHAT IS A LYMPH NODE?

Lymph nodes are the little glands to trap infections that lie along the lymph channels. These are the little vessel like structures which carry away the *lymph* (fluid) from the tissues. These are the "glands" that feel swollen in the neck when you or your child has a sore throat. These glands in your armpit are also where breast cancer tends to spread first.



WHAT IS SENTINEL LYMPH NODE ANALYSIS?

Sentinel lymph node study is a new cancer diagnostic procedure. It tries to look at the most likely first spread of breast cancer. It involves looking at the most likely lymph nodes or node where breast cancer is likely to travel next.

PROCEDURE

A small amount of blue dye and radioactive tracer are injected around the tumor in the breast. The dye and tracer follow the same path that a spreading cancer would be likely to follow. With the use of a Geiger counter, the radioactive tracer can be located in the lymph node that is the gatekeeper to other lymph nodes in the armpit. The sentinel lymph node is the first lymph node in a chain of lymph nodes that drain the lymph from the breast. The blue dye enables the surgeon to identify this sentinel node. This node can be removed and examined. If no cancer is found in this node, no further removal of lymph nodes is recommended. The finding of spread of cancer to the other lymph nodes is rare. This eliminates any more surgery in the armpit and risk of complications.

If the lymph node shows spread of the cancer from the breast, the other lymph nodes in the armpit are removed and analyzed. This helps the doctor and patient decide how much more surgery is needed and if chemotherapy and/or radiation treatment is necessary following the surgery.

BENEFITS

- The pathology tests for this procedure are much more sensitive than was previously available.
- This technique is thought to be a major improvement in the treatment of breast cancer.
- This procedure allows many patients to avoid the effects of more extensive underarm lymph node removal and risk of complications (infection, bleeding, or severe arm swelling).
- Survival rates from breast cancer are better and complications are lessened.

Document Released: 12/18/2006 Document Re-Released: 10/14/2008
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