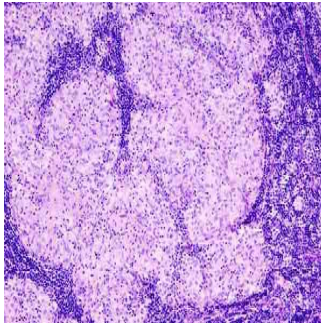

Ultrasound Can ID Breast Cancer Patients Who Need Lymph Nodes Removed



A Mayo Clinic-led study shows that not all women with lymph node-positive breast cancer treated with chemotherapy before surgery need to have all of their underarm nodes taken out. Researchers say that ultrasound is a useful tool for judging before breast cancer surgery whether chemotherapy eliminated cancer from the underarm lymph nodes. The findings are reported in the *Journal of Clinical Oncology*.

The investigators found that repeating ultrasound after chemotherapy could help to determine whether surgeons should remove only a few lymph nodes and test them for cancer, sparing patients whose sentinel nodes are cancer-free the removal of all nodes in the armpit, or take out all of the nodes.

"Our goal here is really to try to get away from, 'Every patient with breast cancer needs these drugs, and this amount of chemotherapy and this surgery,' and instead to personalise surgical treatment based on how the patient responds to chemotherapy," said the study's lead author Judy C. Boughey, MD, a breast surgeon at Mayo Clinic in Rochester, NY.

In the past, when breast cancer was discovered to have spread to the lymph nodes under the arm, surgeons routinely removed all of them. However, taking out all of those lymph nodes may cause lymphoedema and limit the arm's range of motion.

These days many breast cancer patients receive chemotherapy before surgery. Given improvements in chemotherapy drugs and increasing use of targeted therapy, surgeons are seeing more women whose cancer is eradicated from the lymph nodes by the time they reach the operating room, Dr. Boughey noted.

"That's one of the really nice things about giving chemotherapy up front: It allows us to be less invasive with surgery, both in terms of breast surgery and lymph node surgery, and to tailor treatment based on response to chemotherapy," she said.

Avoiding complete underarm lymph node removal when possible means fewer women will experience the complications that can result from that surgery, and avoiding those side effects should also save healthcare costs, the doctor added.

Most patients with lymph node-positive breast cancer receive radiation treatment after surgery. A new study is under way for men and women with breast cancer whose underarm lymph nodes are still positive for cancer after chemotherapy. The goal is to evaluate which is more effective: removing all of those nodes, or leaving the nodes and treating them with radiation, Dr. Boughey explained.

The current research was supported by National Cancer Institute grants U10 CA76001 to the American College of Surgeons Oncology Group, CA31946 to the Alliance for Clinical Trials in Oncology and CA33601 to the Alliance Statistics and Data Center.

Source: [Mayo Clinic](#)

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