Some breast cancer patients can retain lymph nodes, avoiding lymphedema

April 13 2024, by Ernie Mundell

Removal of armpit lymph nodes can leave many breast cancer patients

with lingering lymphedema, a painful and unsightly swelling of the arm.

Now, new Swedish research may help narrow down which patients require extensive lymph removal, based on the number and size of tumors infiltrating lymph nodes, and which do not.

The findings were published April 3 in the New England Journal of Medicine.

"We want to perform less extensive procedures, to spare patients from troublesome side effects. But we need to know that it's safe," explained study lead author Jana de Boniface, a researcher at the department of molecular medicine and surgery at the Karolinska Institute, in Stockholm.

There's already been some progress made in determining whether extensive lymph removal is always necessary.

It's long been known that if a breast cancer has extensively spread within the lymph nodes, removing those nodes is the patient's only recourse.

However, when no such spread is suspected, doctors typically only remove and test a few "sentinel" nodes, to see if they contain any traces of the breast cancer.

If this turns up minimal findings—for example, a single cancer cell or cancerous spots that are less than two millimeters in size—further excision of the nodes is not required.

But what if the node biopsy turns up metastases that are larger than 2 millmeters in one or two sentinel nodes?

To help clarify things for patients with such findings, de Boniface and

colleagues tracked outcomes for nearly 2,800 breast cancer patients from five countries. All had metastases that were larger than 2 millimeters in one or two of their sentinel nodes.

About half of the group were randomly chosen to undergo more complete armpit node removal, while nodes for the other half of patients were left undisturbed.

All patients also got post-surgical chemotherapy and/or radiation therapy to help mop up stray cancer cells, the Swedish team noted.

They report that in a third of all cases where more complete lymph node removal was performed, signs of cancer's spread were found.

The researchers assume that this level of metastasized cancer was happening in the lymph of women who had *not* undergone further lymph node removal.

However, the rate of breast cancer recurrence was roughly equal for both groups.

That suggests that post-op chemotherapy/radiation was usually sufficient to deal with any stray cancer lurking in the lymph nodes of all the patients, the Stockholm team said.

There was a downside to opting for more radical lymph removal: 13% of patients who'd done so went on to experience debilitating lymphedema, compared to just 4% of those who'd only gotten their sentinal nodes removed, the study found.

"Our assessment is that it is safe for patients to forgo axillary dissection [node removal] if there are a maximum of two macrometastases in the sentinel lymph nodes," de Boniface said in a Karolinska news release.

"In these cases, axillary dissection is replaced with radiation therapy to the armpit, which results in less arm-related complications, she added.

"This has now been implemented in clinical practice in Sweden," de Boniface noted.

More information: Jana de Boniface et al, Omitting Axillary Dissection in Breast Cancer with Sentinel-Node Metastases, *New England Journal of Medicine* (2024). DOI: 10.1056/NEJMoa2313487