

DO SMALL BREAST CANCERS NEED LYMPH NODE EVALUATION?

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A dilemma facing oncologists is the evaluation of women with breast cancers who have small-sized malignancies. Usually women with invasive breast cancer have the lymph nodes evaluated. These are the lymph nodes under the axilla or arm pit. The purpose of lymph node evaluation is to determine the extent of disease and therefore dictate best treatment. The best method of evaluation is surgical removal. Yet, this can produce discomfort, even pain and occasionally arm swelling.

Not infrequently women with small breast cancers are presumed most likely not to need lymph node sampling. This obviously makes the patients happy since they save a surgical procedure that is not innocuous.

A recent paper by Saiz et al published in the prestigious journal, *Cancer*, evaluated women with cancers less than 0.5 centimeters (cm) or about one-fifth of an inch to determine the need of lymph node evaluation. Also, evaluated were women with breast cancer measuring 0.5 to 1.0 centimeters (cm) in maximum width.

Previous articles and literature have shown that tumors less than 5cm have zero risk of cancer involvement of the lymph nodes but some articles with tumors measuring 1cm or less have up to 27% lymph node involvement. A study by Saiz et al evaluated the likelihood of lymph node involvement in a single institution.

Between 1990 and 1997, patients with lymph node dissections and breast cancer were retrospectively evaluated. All women with tumors less than 1cm were included. A ruler was used to measure the greatest tumor dimension and the largest dimension was used. If a tumor measured more than 1cm, it was excluded.

Multiple, simultaneous, ipsilateral and primary tumors were included and treated as separate cases if the cancers were of different histologic types and each was less than 1cm in size. Bilateral breast cancers, each less than 1cm in size, were treated as separate cases and the cancers were then divided into those measuring less than or equal to 5 millimeters (mm) and those measuring 6-to-10mm (millimeters).

At that single institution, 192 cases of infiltrating cancer were found less than or equal to 1cm in size.

Seventy-five cases did not have axillary dissection and therefore were not included. Thus, there were 117 cancers from 112 patients. Twenty-four patients had cancers measuring 5mm or less while 93 had cancers measuring 6-to-10mm.

Of the tumors measuring 5mm or less, none had lymph node involvement. Of cancers measuring 6-to-10mm, 12 of 93 (12.9%) had lymph node metastases.

There were no differences found by patient age, type of cancer, grade, estrogen or progesterone receptor, ploidy analysis, chromosomal analysis, lymph or blood vessel invasion. Also, there was no difference in women based upon the number of nodes dissected.

Cancers with metastases tend to be higher grades than those without metastases. Higher grades mean the cancer appears more aggressive when viewed with a microscopy by a trained pathologist.

The authors thus reported that the size of tumor appears to be an important predictor of lymph node metastases for women with breast cancer. They stated that infiltrating breast carcinomas measuring 5mm or less were unlikely to metastasize and, therefore, dissections of the lymph nodes under the arm may not be necessary.

On the other hand, women with breast cancers measuring 5-to-10mm had a 12.9% risk of metastases and the researchers felt for these women "the benefits of lymph node dissections for staging may outweigh the risks."

This information may be of great use to women and their physicians evaluating breast cancer. Now, several studies with tumors 5mm or less have shown a negligible of lymph node involvement.

The risks involved with lymph node involvement include discomfort, numbness, pins and needles as well as the risk of arm swelling. Obviously, risks to be avoided by women, families and physicians.

Each woman knowing the risks and benefits as well as alternatives will decide on the extent of surgery. It appears that for women whose breast cancer is very small - 0.5cm or less - the likelihood of finding cancer cells in the axillary lymph nodes would be exceptionally small. This information may well save some the need for second surgery.

Other groups as well sometimes avoid axillary dissection. Especially prominent in the subject are older women. Many frequently choose to have lumpectomy or removal of the cancerous lump followed by radiation. After discussion with a medical oncologist, treatment is not dramatically altered if these women would not be offered or would not accept to receive intravenous chemotherapy. Therefore, after radiation, hormonal treatment in the form of oral pills containing Tamoxifen are frequently prescribed for twice a day treatment over five years. After five years of therapy, Tamoxifen is stopped for best results.