

Axillary lymph node evaluation performed frequently in ductal carcinoma in situ

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Axillary lymph node evaluation is performed frequently in women with ductal carcinoma in situ breast cancer, despite recommendations generally against such an assessment procedure in women with localized cancer undergoing breast-conserving surgery, according to a study published online by *JAMA Oncology*.

While axillary lymph node evaluation is the standard of care in the surgical management of invasive [breast cancer](#), a benefit has not been demonstrated in ductal carcinoma in situ (DCIS). For women with invasive breast cancer, [sentinel lymph node](#) biopsy (SLNB) replaced full axillary [lymph node dissection](#) (ALND). The sentinel nodes are the first few [lymph nodes](#) into which a tumor drains.

Guidelines published by the American Society of Clinical Oncology and the National Comprehensive Cancer Network recommend against axillary evaluation in women undergoing breast-conserving surgery (BCS). If invasive cancer were to be discovered SLNB could be performed at a later date. But because a total mastectomy precludes future SLNB, the guidelines suggest SLNB may be appropriate for some high-risk patients because axillary evaluation would be indicated if invasive cancer was found, according to background in the study.

Dawn L. Hershman, M.D., M.S., of Columbia University Medical Center, New York, and coauthors determined the incidence of axillary lymph node evaluation in women with DCIS and identified factors associated with the procedure. The authors analyzed medical records

from 2006 through 2012 for women with DCIS who had BCS or mastectomy. The study analysis included 35,591 women.

Of the women with DCIS, 26,580 (74.7 percent) had BCS and 9,011 (25.3 percent) underwent mastectomy. The authors found that 17.7 percent of the women who had BCS and 63 percent of those patients who underwent mastectomy had an axillary lymph node evaluation, according to the results. Among the 63 percent of women who had a mastectomy and underwent axillary evaluation, 15.2 percent of women had full ALND and 47.8 percent had SLNB. Among the 17.7 percent of women who had axillary evaluation with BCS, 16.7 percent of women underwent SLNB and only 1 percent had ALND.

Rates of axillary evaluation increased over time with mastectomy from 56.6 percent in 2006 to 67.4 percent in 2012, but the rates remained relatively stable with BCS with 18.5 percent in 2006 and 16.2 percent in 2012.

Factors such as having surgery at a nonteaching hospital in an urban area were associated with higher rates of axillary evaluation with mastectomy and increasing surgeon volume was associated with decreasing axillary evaluation among women undergoing BCS, the results also indicate.

"Despite uncertainty regarding the clinical benefit of axillary evaluation in women with DCIS, we found that 17.7 percent of women undergoing BCS and 63 percent of women undergoing mastectomy had either an SLNB or ALND. Though use of axillary evaluation in DCIS may be appropriate in some cases, the high rates of axillary evaluation indicate that additional research is needed in this area. In addition to better predictive tools for axillary involvement, other surgical approaches should be evaluated, such as placing a marker in the node rather than removing it, thus allowing for sentinel node removal at a second operation should invasive cancer be identified on final pathology.

Perhaps most importantly, additional prospective evaluation is needed to determine if there is a clinical benefit to axillary evaluation in women with DCIS," the study concludes.

In a related commentary, Kimberly J. Van Zee, M.D., M.S., of the Evelyn Lauder Breast Center at Memorial Sloan Kettering Cancer Center, New York, writes: "The authors found that a much larger proportion of women who had mastectomy underwent nodal evaluation compared with those undergoing BCS (63 percent vs. 18 percent). This is reassuring, although the proportions undergoing nodal evaluation are not consistent with current guidelines."

"Both National Comprehensive Cancer Network (NCCN) and American Society of Clinical Oncology (ASCO) guidelines recommend SLNB for those undergoing [mastectomy](#) to allow staging of the axilla in case [invasive breast cancer](#) is found in the breast, since mapping of the breast is no longer feasible after the breast is removed. In contrast, nodal evaluation is not generally recommended for women undergoing BCS, with three exceptions (1) cases in which an excision was performed in a location that would compromise the subsequent performance of SLNB; (2) those diagnosed by core biopsy but with a large area of DCIS; and (3) those with a suspect mass found on examination or imaging," the author continues.

"The management of breast cancer has undergone a radical transformation over the past few decades, and its evolution is continuing. Axillary surgery has become markedly less aggressive and morbid over the past 20 years. Coromilas and colleagues have shed some light on how the changes in recommended practice have been adopted in a broad sample of hundreds of predominantly small, urban, nonteaching hospitals across the country and by general surgeons who infrequently treat [women](#) with DCIS," the commentary concludes.

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