

Limited lymph node removal for certain breast cancer does not appear to result in poorer survival

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Among patients with early-stage breast cancer that had spread to a nearby lymph node and who received treatment that included lumpectomy and radiation therapy, women who just had the sentinel lymph node removed (the first lymph node to which cancer is likely to spread from the primary tumor) did not have worse survival than women who had more extensive axillary lymph node dissection (surgery to remove lymph nodes found in the armpit), according to a study in the February 9 issue of *JAMA*.

Axillary lymph node dissection (ALND) has been part of breast cancer surgery since the use of radical [mastectomy](#) and reliably identifies nodal [metastases](#). "Sentinel lymph node dissection (SLND) accurately identifies nodal metastasis of early breast cancer, but it is not clear whether further nodal dissection [removal] affects survival," the authors write. "ALND, as a means for achieving local disease control, carries an indisputable and often unacceptable risk of complications such as seroma [a mass or swelling caused by the localized accumulation of serum within a tissue or organ], infection, and lymphedema [condition in which excess fluid called lymph collects in tissues and causes swelling]."

Armando E. Giuliano, M.D., of the John Wayne Cancer Institute at Saint John's Health Center, Santa Monica, Calif., and colleagues conducted a study to determine the effects of ALND on overall survival in patients with SLN metastases treated with [lumpectomy](#) (surgical removal of a

tumor without removing much of the surrounding tissue or lymph nodes) and [radiation therapy](#). The trial was conducted at 115 sites and enrolled patients from May 1999 to December 2004. Patients were women with T1-T2 (stage of tumor) [invasive breast cancer](#), no palpable adenopathy (enlarged lymph nodes), and 1 to 2 SLNs containing metastases.

Patients with SLN metastases identified by SLND were randomized to undergo ALND or no further axillary treatment. Those randomized to ALND underwent dissection of 10 or more nodes. Of 891 patients, 445 were randomly assigned to the ALND group and 446 to the SLND-alone group.

As expected, there was a difference between ALND and SLND-alone treatment groups in total number of removed lymph nodes and total number of tumor-involved nodes; the median (midpoint) total number of nodes removed was 17 in the ALND group and 2 in the SLND-alone group. At a median follow-up of 6.3 years, there were 94 deaths (SLND-alone group, 42; ALND group, 52). The use of SLND alone compared with ALND did not appear to result in statistically inferior survival, with the 5-year over all survival rates being 92.5 percent in the SLND-alone group and 91.8 percent in the ALND group. Disease-free survival did not differ significantly between treatment groups, with 5-year disease-free survival being 83.9 percent for the SLND-alone group and 82.2 percent for the ALND group.

The rate of wound infections, axillary seromas, and paresthesias (prickly, tingling sensations) among patients in the trial was higher for the ALND group than for the SLND-alone group (70 percent vs. 25 percent).

The authors note that these results suggest that [breast cancer](#) patients, such as those in this study, do not benefit from the addition of ALND in terms of local control, disease-free survival, or overall survival, and that ALND may no longer be justified for certain patients. "Implementation

of this practice change would improve clinical outcomes in thousands of women each year by reducing the complications associated with ALND and improving quality of life with no diminution in survival."

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