

'Hidden' cancer cells not a factor in early-stage breast cancer survival rates

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A new study shows that removing lymph nodes due to the presence of occult, or microscopic, cancer cells found in the sentinel lymph node – the one closest to the tumor -- has no impact on survival outcomes of women with early-stage breast cancer. The principal investigator of the study is Armando E. Giuliano, MD, of Cedars-Sinai, who already is renowned for his clinical expertise and for his seminal research on lymph node removal in women with early-stage breast cancer.

The latest study, conducted by the American College of Surgeons Oncology Group (ACOSOG) and supported by the National [Cancer Institute](#), was published in the July 27 issue of the *Journal of the American Medical Association*. Giuliano is the executive vice chair of surgery for surgical oncology and holds several leadership positions at Cedars-Sinai's Samuel Oschin Comprehensive Cancer Institute.

His previous findings related to sentinel lymph node biopsy and cancer diagnosis revolutionized the accepted approach to treating early-stage [breast cancer](#). His groundbreaking research, published earlier this year in the *Journal of the American Medical Association*, challenged the commonly held belief that removing all lymph nodes– not just the sentinel nodes closest to the tumors – was key to improving survival rates.

The ACOSOG research showed the opposite: Survival outcomes were no different between women undergoing total lymph node removal and those only having the sentinel lymph node removed. This finding

dramatically changed the surgical approach for these patients. Women now can be spared the pain and side effects of comprehensive lymph node removal.

In this new study, Giuliano and colleagues sought to determine whether there is an association between patient survival rates and the presence of microscopic [cancer cells](#) that have spread from an early-stage tumor to nearby lymph nodes.

Occult metastases usually cannot be seen in routine pathological or clinical examination. The tiny cells were detected with immunochemical staining of sentinel lymph nodes and bone marrow specimens from patients with early-stage breast cancer.

Some 5,210 women with breast cancer enrolled in the American College of Surgeons Oncology Group trial at 126 sites nationwide from May 1999 to May 2003. All subjects underwent breast-conserving surgery and sentinel lymph node dissection.

"This study shows that the presence of tiny [sentinel lymph node](#) metastases has no bearing on survival outcomes," said Giuliano, co-director of the Saul and Joyce Brandman Breast Center – a Project of the Women's Guild.

According to Giuliano, removing [lymph nodes](#) can cause complications such as lymphedema, a chronic and often painful swelling in the arm that can be debilitating. "Treating the patient doesn't end with stopping the cancer," he says. "We want to make sure we maximize the patient's quality of life even after cancer treatment is completed."

More information: *JAMA*. 2011;306[4]385-393.

Provided by Cedars-Sinai Medical Center

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