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Findings May Alter Care for Early Breast Cancer

By **ANDREW POLLACK**

CHICAGO — For many women with early-stage **breast cancer**, treatment may become considerably less arduous, researchers say.

A new study found that certain women getting a lumpectomy may not need an operation to remove underarm lymph nodes, a procedure that can leave them with painfully swollen arms. Compared with not removing the nodes, the surgery did not prolong survival or prevent recurrence of the **cancer**.

And a second study found that a single dose of radiation, delivered directly to the site of the **tumor** right after a woman has a lumpectomy, was as effective as the six or so weeks of daily radiation treatments that most women now endure.

“We’re now getting really good long-term survival for breast cancer,” said Michael Baum of University College London, the lead investigator of the radiation study, which was presented here at the annual meeting of the American Society of Clinical Oncology. “The theme is now how can we improve the quality of life for women.”

There is some controversy about whether women should be treated at all for certain early breast abnormalities that some experts say may never hurt them. But if a woman is to be treated, doctors would agree the treatment should be as painless and convenient as possible while retaining effectiveness.

Removal of the underarm lymph nodes next to a cancerous breast was long the standard treatment. In the 1990s doctors began to remove and examine only the sentinel node, the one to which cancer would be likely to spread first. Usually the other nodes are removed only if cancer is found in the sentinel node, which happens in about one quarter of cases.

The more extensive removal, called axillary node dissection, can cause restricted mobility of the arm and painfully swollen arms or fingers.

The study presented here involved 991 women who had had lumpectomies, radiation therapy and a positive sentinel **lymph node**. Half had the other lymph nodes removed and the others did not.

After five years there was no difference in survival or disease recurrence between the two groups. Some 82.2 percent of the women who had the dissection were alive and disease free compared with 83.8 percent of those who did not. Cancer recurred in the breast or nearby in 4.3 percent of those who had the operation and 3.4 percent in those who did not.

“The evidence is overwhelming that the operation might not be necessary,” the lead investigator, Dr. Armando Giuliano of the **John Wayne** Cancer Institute in Santa Monica, Calif., said.

About a quarter of women had cancer in the nodes other than the sentinel one, based on the results from those who had the nodes removed. But somehow, this residual cancer did not hurt the patient. That is perhaps because of the radiation the women received. For that reason, Dr. Giuliano said, the results of the study apply only to women who undergo a lumpectomy followed by radiation, not women who undergo complete breast removal, who do not typically get radiotherapy.

One shortcoming was that the trial enrolled only about half the number of patients intended, limiting its ability to draw conclusions. Dr. Giuliano said doctors and patients were reluctant to participate because they feared forgoing node dissection would endanger lives.

Dr. Jennifer K. Litton, a breast cancer specialist at the M. D. Anderson Cancer Center in Houston, said the results could change practice but added, “I don’t think this is going to change overnight.”

She said the study involved only women with **tumors** that had a relatively favorable prognosis and longer follow-up was needed because cancer can recur after five years.

The radiation study tested a procedure that uses a probe to deliver a high dose of radiation directly into the breast where the tumor has been removed by lumpectomy and while the woman is still under **anesthesia**. Some women undergo a mastectomy instead of more limited breast-conserving surgery because they do not want the weeks of radiation therapy or live too far from a radiation center.

Dr. Dennis R. Holmes of the [University of Southern California](#), who was one of the investigators in the trial, said one of his patients ran a marathon two weeks after getting the one-time shot of radiation. “That would have been very unlikely in someone receiving standard breast radiotherapy,” he said.

The study involved 2,232 women. After about four years, there were six recurrences within the affected breast in the women who received the single-dose, or intraoperative, radiation and five cases among those who received conventional radiotherapy.

Statistically, the experimental procedure was “non-inferior” to the standard practice. The frequency of major toxicity was similar in the two groups, the authors reported in *The Lancet*, which published the study online on Saturday. The trial was designed by academic investigators and mainly paid for by University College London [Hospitals](#) and the British and German governments. Carl Zeiss, the company that makes the machine used, picked up some expenses. Dr. Baum, the lead investigator, is a consultant to the company.

Dr. Bruce G. Haffty, chairman of radiation oncology at the Robert Wood Johnson Medical School in New Jersey, said “the follow-up isn’t as long as you’d like it to be.” He said cancer can recur after four years and a large dose of radiation can cause tissue damage that might not show up for three to 10 years.

An earlier version of this article ambiguously described the nature of a lumpectomy. The wording has been clarified.