

Breast cancer surgery patients benefit from adding radiation therapy

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Additional radiation treatment improves disease free survival lessening the chance of cancer recurring in women with early breast cancer who have had breast conserving surgery (lumpectomy), interim results of a new study found. The results will be presented Monday, June 6, 2011 at the annual meeting of the American Society of Clinical Oncology.

"These results are potentially practice-changing," said Dr. Timothy J. Whelan, professor of oncology at McMaster University's Michael G. DeGroot School of Medicine and lead study investigator for the NCIC Clinical Trials Group, which is funded by the Canadian Cancer Society.

In the study of more than 1,800 women with breast conserving surgery, participants received whole breast radiation (WBI) alone or WBI plus radiation to the surrounding lymph nodes called regional lymph node irradiation (RNI). Most of the women had one to three positive lymph nodes while 10 per cent had high-risk, node-negative breast cancer. All had been treated with breast-conserving surgery and [adjuvant chemotherapy](#) or endocrine therapy.

After a five-year follow-up, interim analysis of the data showed a greater than 30 per cent improvement in disease-free survival for those receiving RNI. This resulted from a 41 per cent lower rate of recurrences in the breast and lymph nodes and a 36 per cent lower rate of cancer recurrence in other parts of the body.

There was a low, but statistically significant, increased risk of moderate

pneumonitis ([lung inflammation](#)) and lymphedema (excess lymphatic fluid) in the arm on the radiated side.

Whelan, division head of [radiation oncology](#) at McMaster and the Juravinski Cancer Centre and a Canada Research Chair, expects the results will encourage physicians to offer all women with node-positive disease the option of receiving regional nodal irradiation.

"Adding regional nodal irradiation improved disease-free survival, lowered the risk of recurrences, and there was a positive trend toward improved overall survival, while not greatly increasing toxicities," he said.

"For women with node positive breast cancer who are at high risk of recurrence of their breast cancer, these findings provide an important new treatment option," says Dr. Christine Williams, Director of Research, Canadian Cancer Society. "Ultimately, this finding will help more women survive and thrive after treatment."

Treatment for women with node-positive [breast cancer](#) has been breast-conserving surgery plus axillary lymph node dissection, followed by radiation to the breast (WBI). If a woman's cancer is considered high-risk, such as a tumour larger than 5 cm or more than three positive axillary nodes, she often receives RNI. However, until now, the benefit of adding RNI for women with one to three positive nodes has been unclear.

Provided by McMaster University

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