

Medical News

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Partial Breast Irradiation Effective, Convenient Treatment Option for Low-Risk Breast Cancer

New clinical data shows certain patients get similar results with five days of consecutive targeted treatment versus four to six weeks

COLUMBUS, Ohio – Partial breast irradiation produces similar long-term survival rates and risk for recurrence compared with whole breast irradiation for many women with low-risk, early stage breast cancer, according to new clinical data from a national clinical trial involving researchers from [The Ohio State University Comprehensive Cancer Center – Arthur G. James Cancer Hospital and Richard J. Solove Research Institute](#) (OSUCCC – James).

This randomized, phase 3 study compared whole breast irradiation with partial breast irradiation in a large group of women with stage 0, 1 or 2 breast cancer. More than 4,200 patients were enrolled in the trial as part of NRG Oncology cooperative group [clinical trial](#).

[Study results](#) showed that while partial breast irradiation does not produce equivalent cancer control for all breast cancer patients with stage 0, 1 and 2 disease, it should still be considered as an alternative for women with DCIS (ductal carcinoma in situ) and early stage breast cancers deemed “low risk,” based on other tumor characteristics.

When looking at the entire study population, women who received partial breast irradiation experienced a 4.6 percent recurrence rate. Those who underwent whole breast irradiation experienced at 3.9 percent rate of recurrence. Toxicity from treatment was similar, as well as the risk for secondary cancers.

However, researchers also looked at how this played out in subsegments of the population and found that rates of recurrence were nearly identical for women with DCIS, regardless of whether they

received whole or partial breast irradiation. This was also true for women with breast cancer classified as low-risk, based on the American Society for Radiation Oncology (ASTRO) clinical guidelines.

Researchers showed that in this subsegment of breast cancer patients, the likelihood of recurrence 10-years post treatment was very low overall and almost identical between women who received whole breast irradiation (2.3 percent) and partial breast irradiation (2.7 percent).

[Julia White](#), MD, co-principal investigator of the national trial and head of breast radiation oncology at the OSUCCC – James says this is very important because it reduces the burden of care for women who can still achieve cancer control with fewer treatments, over a shorter period of time.

“A significant portion of the breast cancer patient population nationally – about 25,000 to 30,000 women -- would qualify for partial breast irradiation. This is tremendously important because it allows us to give women the right amount of treatment for her disease, and potentially allowing better access to effective breast conservation for those who live far from a radiation facility. Partial breast irradiation can also be delivered in five consecutive days versus whole breast, which can involve four to six consecutive weeks of multi-day treatment. There is no denying that the five day treatment is less costly and disruptive to life.”

At the OSUCCC – James, breast radiation is also delivered in the face down (prone) position to reduce radiation exposure in the chest wall, which has been linked to increased risk of heart and lung disease post cancer treatment.

Data from this NRG Oncology study will be presented at the American Society of Clinical Oncology Annual Meeting in Chicago on June 3, 2019.

To learn more about breast cancer research and care at the OSUCCC – James, visit cancer.osu.edu/breastcancer or call 1-800-293-5066.

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About the OSUCCC – James

The OSUCCC – James strives to create a cancer-free world by integrating scientific research with excellence in education and patient-centered care, a strategy that leads to better methods of prevention, detection and treatment. Ohio State is one of only 49 National Cancer Institute (NCI)-designated Comprehensive Cancer Centers and one of only a few centers funded by the NCI to conduct both phase I and phase II clinical trials on novel anticancer drugs sponsored by the NCI. As

the cancer program's 344-bed adult patient-care component, The James is one of the top cancer hospitals in the nation as ranked by *U.S. News & World Report* and has achieved Magnet® designation, the highest honor an organization can receive for quality patient care and professional nursing practice. At 21 floors and with more than 1.1 million square feet, The James is a transformational facility that fosters collaboration and integration of cancer research and clinical cancer care. For more information, visit cancer.osu.edu.