Breast cancer treatment with fewer potential side effects has equally good patient outcomes, study shows

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A new study by UCLA scientists has found that women diagnosed with breast cancer and treated with a one-week regimen of partial breast radiation after the surgical removal of the tumor, or lumpectomy, saw no increase in cancer recurrence or difference in cosmetic outcomes compared to women who received radiation of the entire breast for a period of up to six weeks after surgery. The study is one of the largest ever done on partial breast irradiation.

The study lasted two decades and was led by Dr. Mitchell Kamrava, an assistant professor of radiation oncology at UCLA and member of the Jonsson Comprehensive Cancer Center. Kamrava and his team found that with partial breast irradiation the total length of treatment can be reduced to a week because the smaller area of treatment allows for a higher dosage per treatment. Additionally, because partial breast irradiation is more targeted, there is less exposure to vital organs like the lungs and the heart.

The new treatment, formally known as accelerated partial breast irradiation with interstitial multicatheter brachytherapy, works by radiating only breast tissue in and around the area where the tumor was removed. The current standard of care, called whole breast conservation therapy, involves irradiating the entire breast after surgery, usually over the course of five to seven weeks. This results in prolonged exposure to radiation and can potentially lead to more side effects.

"This gives us confidence there is a group of women who are suitable candidates for partial breast radiation and more women should discuss this treatment option with their doctors," said Kamrava.

The study followed over 1000 women who received partial breast irradiation after surgery, with an average follow-up of about seven years.

The next phase for Kamrava and his team will be to analyze the results of randomized trials comparing whole breast versus partial breast irradiation.

The complete study is available in the journal *Annals of Surgical Oncology*.

More information: "Outcomes of Breast Cancer Patients Treated with Accelerated Partial Breast Irradiation Via Multicatheter Interstitial Brachytherapy: The Pooled Registry of Multicatheter Interstitial Sites (PROMIS) Experience." www.annsurgoncol.org/journals/ … 0434-015-4563-7&doi=

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