RADIATION TREATMENT FOLLOWING SURGERY IMPROVES SURVIVAL FOR ELDERLY WOMEN WITH EARLY-STAGE BREAST CANCER

University of Maryland School of Medicine researchers report benefit over lumpectomy alone

BOSTON, Mass. – Oct. 29, 2012. Elderly women with early-stage breast cancer live longer with radiation therapy and surgery compared with surgery alone, researchers at the University of Maryland School of Medicine have found. The researchers, who collected data on almost 30,000 women, ages 70 to 84, with early, highly treatable breast cancer enrolled in a nationwide cancer registry, are reporting their findings at the 54th annual meeting of the American Society for Radiation Oncology (ASTRO).

“Overall survival and breast cancer-specific survival were significantly better at all time points for elderly women with Stage I, estrogen-receptor (ER)-positive breast cancer with no lymph node involvement who received radiation therapy following surgery to remove the tumor,” says lead author Randi J. Cohen, M.D., M.S., an assistant professor of radiation oncology at the University of Maryland School of Medicine and a physician in the Department of Radiation Oncology at the University of Maryland Marlene and Stewart Greenebaum Cancer Center.

For women who had radiation and a lumpectomy, the overall survival rate was 88.6 percent at five years, 65 percent at 10 years and 39.6 percent at 15 years. That compares with a survival rate of 73.1 percent at five years, 41.7 percent at 10 years and 20 percent at 15 years for women who only had surgery. The median survival was 13 years for patients receiving surgery and radiation, compared with 9.9 years for patients receiving surgery alone. The researchers don’t know how many of the women also received hormonal therapy.
“Our findings suggest that adjuvant radiation therapy should be strongly considered as part of the treatment regimen for otherwise healthy elderly women with early ER-positive breast cancer,” Dr. Cohen says. “A woman’s age alone should not dictate whether or not radiation is recommended.”

The senior author, Steven J. Feigenberg, M.D., an associate professor of radiation oncology at the University of Maryland School of Medicine and a researcher at the University of Maryland Greenebaum Cancer Center, notes that the data also showed that the use of adjuvant radiation decreased as the women grew older. Eighty percent of women age 70-74 received radiation compared with 61 percent of women age 80-84.

“Breast radiation is the standard of care following lumpectomy for early-stage breast cancer, but previous research suggested that it helped to prevent the cancer from returning in the treated breast but has no impact on survival in older women,” Dr. Feigenberg says. “As a result, some elderly women may not have been offered radiation therapy as part of their breast cancer treatment. We wanted to look at a large, population based database to determine if radiotherapy does offer some benefits in terms of survival, and we found that it does.”

Breast cancer patients typically have radiation treatments five days a week for six weeks following surgery, to prevent the cancer from recurring.

E. Albert Reece, M.D., Ph.D., M.B.A., vice president for medical affairs at the University of Maryland and the John Z. and Akiko K. Bowers Distinguished Professor and dean of the University of Maryland School of Medicine, says, “Breast cancer is a very common problem for older women, with more than half of the women diagnosed with breast cancer in the U.S. over the age of 65. Many of them have early-stage cancers, which can removed with a lumpectomy. This large-scale study provides convincing evidence that adjuvant radiation therapy should also be offered to these older patients.”

The researchers analyzed data from the SEER (Surveillance, Epidemiology and End Results) registry, which is maintained by the National Cancer Institute. They identified 29,949 women, from 70 to 84 years old, who were diagnosed with early-stage (T1 N0 M0) ER-positive breast
cancer between 1990 and 2009 and had limited surgery. Seventy-six percent of the patients also received adjuvant radiation.

The median follow-up was 5.5 years, but the researchers used an analysis tool to determine overall survival and breast cancer-specific survival, which was also improved for patients who had surgery and radiation, the researchers found. At five years, the breast cancer-specific survival rate was 98.3 percent for women who received radiation and surgery compared to 97.4 percent who had surgery alone. At 10 years, the rate was 95.5 percent versus 93.3 percent.

The researchers attributed the improved outcomes with surgery and radiation to better “locoregional control” of the cancer. They also noted that patients selected to receive radiation may have been healthier with a longer anticipated life expectancy than those who did not receive radiation.

**About the University of Maryland Marlene and Stewart Greenebaum Cancer Center**

The University of Maryland Marlene and Stewart Greenebaum Cancer Center is a National Cancer Institute-designated cancer center, which is part of the University of Maryland Medical Center and the University of Maryland School of Medicine. The center is recognized for its active clinical and basic science research program. It has comprehensive programs to treat all types of cancer and is a major referral center for patients throughout Maryland and the region. It has been recognized as one of the top 15 cancer centers in the nation by *U.S. News & World Report* in 2012-13. For more information about the center, go to [www.umgcc.org](http://www.umgcc.org).

**About the University of Maryland School of Medicine**

Established in 1807, the University of Maryland School of Medicine is the first public medical school in the United States, and the first to institute a residency-training program. The School of Medicine was the founding school of the University of Maryland and today is an integral part of the 11-campus University System of Maryland. On the University of Maryland's Baltimore campus, the School of Medicine serves as the anchor for a large academic health center which aims to provide the best medical education, conduct the most innovative biomedical research and provide the best patient care and community service to Maryland and beyond. [www.medschool.umaryland.edu](http://www.medschool.umaryland.edu).

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