

Breast-conserving therapy yielded better outcomes than mastectomy for early-stage patients

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Among patients with early-stage breast cancer, those who received breast-conserving surgery plus radiation therapy had improved overall survival after 10 years compared with those who received mastectomy without radiation therapy, according to data presented at the 2015 San Antonio Breast Cancer Symposium, held Dec. 8-12.

"Comparison of survival outcomes after breast-conserving therapy [breast-conserving surgery followed by radiation therapy(BCT)] versus [mastectomy](#) without radiation therapy could provide important information to help support the shared decision-making process and improve the quality of breast cancer care," said Sabine Siesling, PhD, senior researcher at the Netherlands Comprehensive Cancer Organisation, Utrecht, the Netherlands, and professor at the University of Twente, Enschede, the Netherlands.

Several observational studies have provided evidence to suggest that BCT confers better survival than mastectomy; however, these observational studies have limitations, Siesling explained. "Most of these observational studies only followed patients for a maximum of five years. Since recurrences are described to occur after five years as well, getting more insight into the long-term outcomes after different types of surgery based on daily practice experience on a national level is of great importance," she added.

To determine whether there was a difference in the overall survival (OS) and disease-free survival (DFS) outcomes following BCT and mastectomy, Siesling and colleagues used data in the Netherlands Cancer Registry. Data from 37,207 women diagnosed with [early-stage breast cancer](#) between 2000 and 2004 was used to estimate 10-year OS, and data from a subcohort of 7,552 patients with similar characteristics diagnosed in 2003 was used to estimate 10-year DFS.

About 58 percent and 62 percent of the patients from the total cohort and subcohort, respectively, received BCT, and the rest of them received mastectomy.

Patients from the total cohort who received BCT had a 10-year OS of 76.8 percent, versus 59.7 percent for those who received mastectomy. Patients from the subcohort who received BCT had a 10-year DFS of 83.6 percent, versus 81.5 percent for those who received mastectomy.

After adjusting for confounding factors, the researchers found that those who received BCT were estimated to be 21 percent more likely to be alive after 10 years than those who received mastectomy. Adjusting for confounding factors also showed that there was no significant difference in DFS between those receiving BCT and those receiving mastectomy. The results were similar in all subgroup analyses, including tumor stage and lymph nodal status.

Analyses of data from the subcohort also showed that the patients who received BCT developed regional recurrences and distant metastases less often than those who received mastectomy. Additional analyses, determining the 10-year distant metastasis-free survival (DMFS), revealed that patients with T1N0 stage breast cancer [small tumors up to 2 cm, with no nodal involvement] who received BCT had a significantly improved 10-year DMFS compared to those who received mastectomy.

"We think that [radiation therapy](#) may have played an important role in the difference in the outcomes from both treatments, although we cannot prove it with our data," Siesling said. "We suggest that BCT should be the treatment of choice, especially in T1N0 stage [breast cancer](#) when it is medically feasible and according to the patient's wish," she added.

Siesling cautioned that [observational studies](#) are prone to confounding by indication. In this study, patients receiving BCT were younger and had more favorable tumor characteristics compared to [patients](#) receiving mastectomy. "We corrected for all of these factors in the multivariable analyses; however, we cannot completely rule out this phenomenon," she said. "In addition, residual confounding caused by non-measured factors could also have altered the results. However, we do not expect these factors to overrule the large impact of all variables we included in the analyses," she added.

More information: Abstract: S3-05: Title: Higher 10-year overall survival after breast conserving therapy compared to mastectomy in early stage breast cancer: A population-based study with 37,207 patients

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