

Breast-Conserving Therapy Yielded Better Outcomes than Mastectomy in Early-Stage Breast Cancer

PracticeUpdate Editorial Team

December 10, 2015--San Antonio, Texas — Among patients with early-stage breast cancer, those who received breast-conserving surgery + radiation therapy experienced improved overall survival after 10 years vs those who received mastectomy without radiation therapy.

This outcome of a retrospective registry study was reported at the 2015 San Antonio Breast Cancer Symposium, from December 8–12.

Sabine Siesling, PhD, of the University of Twente, Enschede, The Netherlands, explained, “Comparison of survival outcomes after breast-conserving therapy (breast-conserving surgery followed by radiation therapy) vs mastectomy without radiation therapy could support the shared decision-making process and improve the quality of breast cancer care.”

Several observational studies have suggested that breast-conserving therapy confers better survival than mastectomy, but these studies have been limited.

Dr. Siesling said, “Most of these observational studies followed patients for 5 years at most. Since recurrences occur after 5 years as well, insight into long-term outcomes after different types of surgery, based on daily practice experience on a national level, is of great importance.”

Dr. Siesling and colleagues used the Netherlands Cancer Registry to determine whether there was a difference in overall and disease-free survival following breast-conserving surgery vs mastectomy.

Data from 37,207 women diagnosed with early-stage breast cancer between 2000 and 2004 was used to estimate 10-year overall survival, and data from a subcohort of 7552 patients with similar characteristics diagnosed in 2003 was used to estimate 10-year disease-free survival.

About 58 and 62% of patients from the total cohort and subcohort, respectively, received breast-conserving therapy, and the rest underwent mastectomy.

Patients from the total cohort who received breast-conserving therapy experienced a 10-year overall survival of 76.8%, vs 59.7% of those who underwent mastectomy.

Patients from the subcohort who received breast-conserving therapy experienced a 10-year disease-free survival of 83.6% vs 81.5% for those who received mastectomy.

After adjusting for confounding factors, the researchers found that those who received breast-conserving therapy were 21% more likely to survive after 10 years than those who underwent mastectomy.

Adjusting for confounding factors also showed no significant difference in disease-free survival between those receiving breast-conserving therapy vs mastectomy. Results were similar in all subgroup analyses, including tumor stage and lymph node status.

Analyses of data from the subcohort also showed that patients who received breast-conserving therapy developed regional recurrence and distant metastases less often than those who received mastectomy.

Additional analyses, determining 10-year distant metastasis – free survival, revealed that patients with T1N0 stage breast cancer (small tumors up to 2 cm, with no nodal involvement) who received breast-conserving therapy experienced a significantly improved 10-year distant metastasis – free survival vs those who received mastectomy.

“We think that radiation therapy may have played an important role in the difference in outcomes from both treatments, though we cannot prove it with our data,” Dr. Siesling said.

“Breast-conserving therapy should be the treatment of choice, especially in T1N0 stage breast cancer when medically feasible and according to the patient’s wish,” she added.

Dr. Siesling cautioned that observational studies are prone to confounding by indication. In this study, patients receiving breast-conserving therapy were younger and had more favorable tumor characteristics than those receiving mastectomy.

“We corrected for all of these factors in multivariable analyses, yet we cannot completely rule out this phenomenon,” she said.

“In addition, residual confounding caused by nonmeasured factors may also have altered the results. We do not expect these factors to overrule the large impact of all variables we included in the analyses, however.”