

Local-regional radiotherapy and surgery is associated with a significant survival advantage in metastatic breast cancer patients

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ABSTRACT

Background. There is growing evidence of a survival benefit for metastatic breast cancer patients receiving surgery of the primary tumor. We investigated whether or not adjuvant radiotherapy can improve survival.

Methods. Women diagnosed between 1988 and 2003 with metastatic, histologically confirmed unilateral primary breast cancer were selected from the SEER Program. Overall survival and specific survival were computed by the Kaplan-Meier method. Treatment hazard ratios of breast-conserving surgery or mastectomy *versus* no surgery, and radiotherapy *versus* none, were computed by Cox regression adjusting for period of diagnosis, age, marital status, race, histology, grade, and hormone receptors.

Results. Of 8761 women, radiotherapy was given to 1473 of 3905 who did not undergo surgery, to 882 of 2070 who underwent breast-conserving surgery, and to 1103 of 2786 mastectomy patients. Median overall survival was: for no surgery, 14 months; for breast-conserving surgery, 23 months; and for mastectomy, 28 months ($P < 0.0001$). The median overall survival of radiotherapy *versus* none was respectively 16 *vs* 13 months without surgery ($P = 0.0003$), 28 *vs* 20 months for breast-conserving surgery patients ($P < 0.0001$), and 28 *vs* 28 months among mastectomy patients ($P = 0.895$). Multivariate analysis showed relative mortality reductions of 28% by breast-conserving surgery, 42% by mastectomy, and 10% by radiotherapy. Specific survival showed comparable results.

Conclusions. Surgery and radiotherapy were associated with a significant survival advantage. We argue that local therapy should be considered even in metastatic disease. Free full text available at www.tumorionline.it

Key words: local therapy, metastatic, radiation treatment, surgery, systemic disease.

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