Long-term outcome after postmastectomy radiation therapy for breast cancer patients at high risk for local-regional recurrence

Reviewers: Kenneth Blank, MD
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Introduction
Two recently published randomized trials documented the benefit of administering radiotherapy after mastectomy for breast cancer. In both these papers, the local-regional recurrence rate was reduced from 40% with surgery alone to 10% with surgery and radiation. In the March/April issue of the Cancer Journal physicians from The University of Pennsylvania report their experience with postmastectomy radiation therapy.

Methods
221 women at high risk for local-regional failure after mastectomy were selected to receive radiotherapy. High-risk features included stage T3 and T4 disease, positive lymph nodes or close margins. Thirty-nine percent of women had more than one of these high-risk features and four percent had none. Radiotherapy to the chest wall was administered in 1.8Gy or 2.0Gy daily fractions to a total dose of 45 to 50.4Gy. Regional lymph node basins were treated in the majority of women. The median follow-up was 4.3 years.

Results
Eleven patients experienced a local-regional failure, yielding an actuarial rate of local-regional control of 89% at ten years. Much more common than local failure was distant failure. Over half of the women received adjuvant chemotherapy or hormonal therapy, but the rate of distant failure remained high: 75 patients (34%) developed distant metastases.

Conclusion
Women who are at high risk for local-regional failure after mastectomy benefit from adjuvant radiotherapy. The rate of local-regional failure reported in this American study corroborates the rates reported in the two recently reported randomized trials. The authors conclude that postmastectomy radiotherapy is recommended for high-risk women.