

NSABP EVALUATION OF WOMEN COMPARING MASTECTOMY TO LUMPECTOMY WITH AND WITHOUT RADIATION

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One of the greatest oncologic problems facing women today is determining the best treatment of breast cancer. The National Surgical Adjuvant Breast Project recently presented twelve-year follow up data in the prestigious New England Journal of Medicine. This important research led by Fisher et al updated the most influential American study evaluating women with breast cancer treated with either lumpectomy alone, lumpectomy followed by radiation or mastectomy.

Women with either negative or positive axillary nodes and tumors measuring 4 cms or less were randomly allocated to either mastectomy, lumpectomy alone or lumpectomy and radiation.

Patients entered this study from 1976 through 1984 and totaled 2,163 women. There were 692 patients who underwent total mastectomy. There were 699 patients who underwent lumpectomy and 714 patients who underwent lumpectomy and radiation.

There were patients excluded for a variety of reasons. Ultimately 1,529 patients were evaluated, including 494 in the mastectomy group, 520 in the lumpectomy group and 515 in the lumpectomy/radiation group. The mean time in this study was 149 to 151 months - that is, more than 12 years.

The overall survival in the three treatment groups was found to be not significantly different. The authors noted, "Overall survival among patients treated by lumpectomy and breast radiation was the same as or slightly greater than that among patients treated by total mastectomy." Thus, there was no deterrent for women desiring to maintain one's own breast by lumpectomy/radiation to do so.

Furthermore, the authors noted, "Significantly or nearly significantly higher percentages of patients with node-negative cancer treated by total mastectomy or lumpectomy and breast radiation remained free of disease and free of distant disease than of patients with node negative cancer treated by lumpectomy."

The authors evaluated the likelihood of recurrence in the breast after lumpectomy, if the lumpectomy removed pathologically all of the known tumor. It was found that radiation therapy after lumpectomy resulted in a "marked decrease in the rate of recurrence of tumor" in the treated breast. If lumpectomy only was performed, there was a 35% recurrence rate in the breast. The recurrence rate fell to 10% if lumpectomy/radiation was carried out. Statistical evaluation determined these differences dramatically significant. These numbers in lymph node-negative patients was 32% and 12% respectively.

If patients had node-positive breast cancer and received chemotherapy, there was a decrease in the recurrence rate in the treated breast to 5% in those having lumpectomy and radiation compared to 41% in women having lumpectomy without radiation.

The overall survival rate in 1529 patients evaluated was 63% for those having lumpectomy/radiation compared to 59% having mastectomy and 58% having lumpectomy alone. Women with smaller cancers as well as node lymph negative cancers had higher survival rates.

In the concluding remarks the authors noted, "The value of radiation therapy in reducing the incidence of tumor in the ipsilateral breast after lumpectomy continues to be an important factor. Current findings show an 10% cumulative incidence of tumor recurrence after 12 years of follow

up among patients who underwent radiation, as compared to 35% who underwent no irradiation. These values are lower than those previously reported since they estimate the probability of recurrence of tumor in the ipsilateral breast in the presence of competing risks - that is, recurrences at other sites and deaths."

Of importance is the good outcome in breast preservation in women with lymph node positive breast cancer undergoing chemotherapy and radiation. As Fisher et al noted, "Of particular importance are the findings in patients with node positive cancer treated by lumpectomy who also received radiation and systemic therapy. The cumulative incidence of recurrence tumors in the ipsilateral breast was only 5% in this group at 12 years of follow up. This low incidence precludes one from considering positive axillary nodes as a contra-indication to breast conserving surgery."

These important medical researchers concluded that "after 12 years of follow up, findings continue to indicate that lumpectomy followed by breast irradiation is appropriate therapy for women with Stage I or II breast cancer."

Continued follow up shows that lumpectomy and breast irradiation certainly is, at least, an equivalent option to mastectomy and can be in no way construed as inferior for women whose tumors measure 4 cms or less and are totally removed.