



## Conservative operations for breast cancer: current issues and controversies

**I**N THIS ISSUE, Crile and Esselstyn present a follow-up report on 291 patients who had partial mastectomy at the Cleveland Clinic for definitive treatment of carcinoma of the breast, from 15 to 22 years ago. The purpose of this long-term follow-up is to identify factors that might indicate which patients were likely to have a local recurrence and therefore should undergo complete breast removal or radiation therapy to the remaining breast tissue.

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■ See Crile and Esselstyn (pp 143–146)

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This study addresses one of the important issues in conservative surgery for breast cancer: whether all patients require prophylactic radiation therapy after partial mastectomy or whether it is possible to identify a subset of patients in whom the probability of recurrence is sufficiently low that prophylactic radiation therapy is not warranted. In this subset of patients, radiation therapy would be given only if the patients had a later local recurrence.

Partial mastectomy, also termed “lumpectomy,” “segmental mastectomy,” and “quadrantectomy” by some, has gained general acceptance in both the United States and the rest of the world for treatment of small cancers of the breast that have a high probability of favorable outcome. However, many surgeons have been reluctant to leave the traditional concept that whenever breast cancer is present, the *entire* breast requires treatment. Therefore, while the radical surgery of past years has given way to conservative surgery, radical radiation therapy remains a widespread practice.

Our group at the Cleveland Clinic has been perform-

ing partial mastectomy without radiation therapy in selected patients since Crile introduced conservative operations here in the mid-1950s. Our long-term survival has been excellent; patients with partial mastectomy have done as well as or better than patients having complete mastectomy for breast cancer.

Our local recurrence rate has been less than that of the National Surgical Adjuvant Breast Project (NSABP), in a recently reported multi-center trial.<sup>1</sup> In that experience, when partial mastectomy without radiation therapy was used, local recurrence rates were excessively high (39% at 8 years of follow-up). In our experience, local recurrence is only 11% at 5 years and 15% at 10 years.<sup>2</sup> We attribute this decreased local recurrence to our selection of patients for the operation. Primarily, we chose patients with a tumor size of 2 cm or less. In the NSABP study, patients with tumors up to 4 cm in size were accepted for randomization between partial mastectomy with or without radiation.

Other current issues being discussed among physicians and surgeons are: 1) the advantages and disadvantages of screening mammography and whether it should be performed yearly, as well as how to interpret small, nonpalpable lesions of the breast in order to better select patients for biopsy; 2) how to treat early, noninvasive breast cancer that is now being found more frequently than in years past due to the use of mammography, and whether partial mastectomy is as suitable for treatment of these early, noninvasive lesions as it is for invasive cancer; and 3) whether chemotherapy or hormonal therapy should be advised prophylactically for patients after mastectomy when the lymph node evaluation is negative.

The search continues for other prognostic factors in the treatment of breast cancer in addition to those al-

ready known, including size of the tumor, stage of the disease, histologic type, delay in treatment, and estrogen receptor activity.

Dr. George Crile, Jr. was one of the early innovators and instigators of many of the changes in the surgical treatment of breast cancer, which began in the 1950s and continues today. In his retirement from a long and active surgical practice, at age 82, Dr. Crile continues to maintain his interest in these problems and to contribute to our knowledge about breast cancer. The members of the Department of General Surgery, in cooperation with our medical oncologists, radiation therapists, pathologists, and reconstructive and plastic surgeons, continue to review our experience with the treatment of breast cancer in order to study the biology of this disease

and provide individualized, appropriate therapy.

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#### REFERENCES

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1. Fisher B, Redmond C, Poisson R, et al. Eight-year results of a randomized clinical trial comparing total mastectomy and lumpectomy with or without irradiation in the treatment of breast cancer. *N Engl J Med* 1989; 320:822-828.
2. Hermann RE, Esselstyn CB, Crile G Jr, Cooperman AM, Antunez AR, Hoerr SO. Results of conservative operations for breast cancer. *Arch Surg* 1985; 120:746-751.

