

Lumpectomy in Male Patients with Breast Cancer

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Approximately 1 % of breast cancer occurs in men.¹ As a result of the rarity of this disease, few studies have been conducted. Most of the existing information about breast cancer in men comes from small institutional series and population-based cancer registries.^{2,3} No randomized clinical trials have been conducted, and treatment recommendations have generally been extrapolated from the results of clinical trials conducted in women. In particular, no prospective studies have been performed to evaluate the surgical management of male patients. Although breast conservation has been shown to have equivalent outcomes to mastectomy for selected female patients, little information exists about the use of breast conservation in men with a diagnosis of breast cancer.⁴

Cloyd et al.⁵ offer one of the first descriptions of a large series of male patients who were treated with lumpectomy. The authors used information from the National Cancer Institute's Surveillance, Epidemiology, and End Results (SEER) program, which collects data on cancer incidence, first course of treatment, and survival on ~28 % of the population of the United States. They identified a cohort of 718 male patients who underwent lumpectomy and 4,707 male breast cancer patients who were treated with mastectomy. Being treated with lumpectomy was associated with older age, stage IV disease, and lack of axillary surgery. In this observational cohort, no difference was seen in survival by type of surgery.

In this study, the patients who underwent lumpectomy were a clinically heterogeneous group. Because this study

did not specifically study the surgical management of patients with operable breast cancer, the resulting cohort is a mix of patients who had standard breast conservation therapy with lumpectomy and radiation and patients who underwent lumpectomy alone, perhaps for local management of metastatic disease or for patients who were at high operative risk. In fact, only 254 of the 718 patients (35 %) had standard breast conservation therapy with lumpectomy and radiation, and the rest of the patients had lumpectomy alone. The omission of radiation was not the only deviation from standard practice because 34 % of patients treated with lumpectomy did not have their axilla evaluated. These findings suggest that most male patients treated with lumpectomy are not receiving a standard approach to local therapy as an alternative to mastectomy.

Given that most of the male patients treated with lumpectomy did not receive what would be considered standard care, the survival comparisons are difficult to interpret. In addition, clear differences were seen in the baseline patient characteristics between the patients who received mastectomy versus lumpectomy. Although a multivariable analysis was performed to help to adjust for the differences in patient populations, residual confounding is likely to persist. Therefore, these data do not provide definitive evidence of equivalent outcomes for the two surgical approaches in men, but they do provide some reassurance in the absence of any data from clinical trials.

Another interesting aspect in this paper is the overall very low rate of breast conservation. Only 246 of 5,425 (4.5 %) male patients were managed with breast conserving therapy. The reasons for this are likely to be multifactorial. Although breast conservation therapy may be technically possible in some male patients, many patients with male breast cancer have centrally located tumors that may limit the feasibility of a breast conserving approach. In addition, particularly when the tumor location necessitates the removal of the nipple–areolar complex, the

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cosmetic benefit of breast conservation may be less evident in a male patient. Finally, some surgeons may be reluctant to offer this approach without level I evidence to support breast conservation in men.

International efforts are underway to better characterize this rare disease. The EORTC, the Breast International Group, and the North American Breast Cancer Group are collaborating on a large study of male breast cancer. The initial portion of the study is a retrospective collection of clinical data and paraffin-embedded tissue specimens to evaluate the patterns of care, clinical course, and biologic characteristics of male breast cancer. This effort has already registered more than 1,000 male patients. The second part of this study, which will involve prospective collection of data and tissue specimens, will be launched soon. This international cooperation will help to provide

sufficient numbers of patients to allow for meaningful advances in our understanding of breast cancer in men.

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