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GUEST EDITORIAL

Lack of Knowledge Is Not the Same as Lack of Benefit: It Is Time to Stop Undertreating Our Elderly Breast Cancer Patients

KATHLEEN M. DIEHL, MD*
Department of General Surgery, University of Michigan, Ann Arbor, Michigan

Ever since Dr. H. Muss's presentation regarding the frequency of lymph node involvement and differences in chemotherapy administration between younger and older patients enrolled in CALGB trials at the Annual American Society of Clinical Oncology (ASCO) meeting in 2003, the question has appeared in the headlines of many journal articles and news reports "Are we undertreating elderly breast cancer patients?" [1] Strictly interpreted, the answer to this question is yes. Multiple reviews have shown that older breast cancer patients are less likely to receive breast-conserving therapy, reconstructive surgery after mastectomy, radiation therapy after lumpectomy, and chemotherapy even for lymph node positive disease, as compared to their younger counterparts. Beyond a doubt studies have shown that elderly breast cancer patients are less often treated in compliance with national breast cancer guidelines.

However, the better question to ask ourselves is "Why are we undertreating elderly breast cancer patients?" Are physician's ageists? They do tend to underestimate the life expectancy of older patients, and to be overly pessimistic about older patient's ability to tolerate recommended treatment. Also, many physicians confuse normal age related changes in physiology with the increased risk of comorbid disease that accompanies aging. It is misleading to declare that it is not chronologic age, but underlying health that is important. There are changes in hepatic metabolism, renal function, volume of distribution of medications, and other organ function as individual's age that must be understood by physicians treating geriatric patients. As individuals age there is an increased risk of comorbid conditions such as obesity, heart disease, diabetes, etc. There are deficiencies in the educational background of most physicians regarding normal and abnormal geriatric physiology and treatment.

When considering undertreatment of geriatric breast cancer patients, these deficiencies in physician education and understanding of geriatric care are accentuated by the fact that many physicians do not feel that standard breast cancer treatment guidelines adequately reflect the best level of care for older breast cancer patients. A large number of experienced physician feel that these national breast cancer treatment guidelines are overly aggressive for many older patients, particularly those with multiple comorbidities. A large review of breast cancer patients using the SEER database evaluated death from breast cancer versus death from other causes in over 400,000 women treated in the United States between 1973 and 2000. For patients with early stage, localized, estrogen receptor positive breast cancer, only in patients less than 50 (T1 tumors), or 60 years of age (T2 tumors), was the risk of death from breast cancer more then the risk of death from other causes. In other words, for patients over 50–60 years old, the risk of death from other causes exceeded their risk of dying from breast cancer. Even in those patients who had lymph node metastasis, if they had estrogen receptor positive disease, only in those patients under 70 did the risk of breast cancer exceed the risk of dying from other diseases. This reinforces the underlying assumption of many physicians that aggressive treatment of breast cancer in older patients may do more harm then good, as breast cancer will not be their life limiting disease, particularly for those patients with multiple comorbidities. It is also important to note, however, that for those patients who were lymph node positive and estrogen receptor negative, the risk of dying from breast cancer was higher then the risk of dying from other diseases at any age, yet it has been shown in many reviews that even that subgroup of older patients are often undertreated with systemic therapy [2]. The tendency to not comply with national breast cancer guidelines for older patients because of the belief by many physicians that breast cancer treatment guidelines are overly aggressive for older patients is often further complicated by the heterogeneity in beliefs and desires of the patients themselves. Anyone who frequently treats older patients can confirm that for the same set of circumstances and comorbidities a recommended treatment plan will be seen by one patient as overly risky and aggressive and by another patient as not aggressive enough. So, although helpful, the general evidence from the SEER database regarding risk of death from breast cancer versus risk of death from other causes is not enough to guide a physician in making decisions in the treatment of an individual patient. Most physicians are not well trained to predict a patient's life expectancy based on their comorbidities and age, and as mentioned above, often are overly pessimistic in predicting an individual's mortality from other causes, and overly optimistic in predicting an individual's mortality from breast cancer. It is exactly this gap in knowledge that national practice guidelines are supposed to address.

In an ideal world there would be guidelines specific for older patients, guidelines that would allow individualization of care for each older patient's particular comorbidities and personal preferences in aggressiveness of care. However, not only are guidelines allowing individualization of care not available, there are scarce general guidelines specific to the treatment of breast cancer in older patients. The National Comprehensive Cancer Network (NCCN) put together a task force to create general guidelines for treatment of breast cancer in this patient population. Their group commented, "A common theme was the paucity of high level evidence" [3]. This same difficulty was noted by the task force of the International Society of Geriatric

*Correspondence to: Kathleen M. Diehl, MD, Department of General Surgery, University of Michigan, 3306 CCC, 1500 E. Medical Ctr Dr., Ann Arbor, MI 48109. Fax 734-647-9647. E-mail: kdiehl@umich.edu

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Oncology (ISGO) [4]. Much of the data available for review was from retrospective reviews or sub analysis of other trials. Of those trials targeted to older breast cancer patients the follow up was often short term. In many instances the task forces were able to outline questions still remaining in the treatment of older breast cancer patients easier then they were able to provide recommendations based on high level evidence. There is a dearth of prospective randomized trials specific to older patients. The discrepancy between the numbers of individuals with a cancer compared to their representation in clinical trials is most apparent in breast cancer. This is ironic considering the fact that almost half of all breast cancer happens in women over the age of 65 and it has been shown that older patients are as likely as younger women to enter clinical trials when offered the opportunity. I have often been impressed with how vehemently physicians will defend decisions to forgo surgery, staging, or adjuvant treatment in older breast cancer patients. When one considers the difficulties these task forces have encountered in developing guidelines, one has to wonder how physicians can be so adamant in their decisions to undertreat this patient population.

Given the aging of our population, and the fact that it is projected that in the next several years over half of all breast cancer patients will be over the age of 70, it is imperative that these deficits, both in data related to the treatment of older patients, and the ability to individualize care to the needs and desires of these patients, be addressed. The recent success in decreasing breast cancer mortality has not been realized in older patients to the extent that it has in younger patients. In the last two decades patients over the age of 70 with estrogen receptor positive disease noted a decreased mortality of only 14% as compared to the 38% decrease noted in those patients under the age of 70. Older patients with estrogen receptor negative disease experienced no decrease in mortality from breast cancer [5].

It is imperative that until the data is available to develop more detailed guidelines for breast cancer specific to our older patients that we comply with current breast cancer guidelines for all patients, and to those recommendations made by the NCCN and ISGO task forces. We must continue to accurately stage our older patients, and to enroll them in clinical trials. Only after we can evaluate the results of complying with current guidelines with accurately staged and adequately treated patients, and have accrued a large body of data regarding those results, will we be able to develop new robust guidelines. Until then, we must acknowledge that we are undertreating this patient population—whatever our motives.

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