

Preface

# Breast Cancer



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*Guest Editor*

Breast cancer remains the most common malignancy among women and the leading cause of death among young women. Breast cancer and associated diagnostic issues are also the most common disorders treated by surgical oncologists. Therefore, an in-depth understanding of the issues of breast cancer management is critical to surgical oncology practice.

Breast cancer management is undergoing rapid change. This is due in part to the rapidly evolving understanding of breast cancer biology and the newly available technologies for diagnosis and treatment. The rapidity of change in breast cancer management is also a function of the large numbers of cases and the public awareness of the problem. Breast cancer is probably the most studied cancer and the subject of the largest numbers of clinical trials. Indeed, breast cancer was the area of interest for some of the pioneers of clinical trial research in the United States and Europe. Landmark clinical trials in the 1970s challenged common wisdom, changed the nature of breast cancer treatment, and set the stage for rapid change in subsequent decades.

We are currently seeing continued acceleration in change in breast cancer treatment. This issue of the *Surgical Oncology Clinics of North America* highlights some of the issues facing breast cancer medicine as we move into the future. This issue does not attempt to review standard treatment controversies in breast cancer. The literature is replete with reviews addressing issues of screening, diagnostic testing, local therapy with surgery and radiation, and adjuvant systemic therapy. We chose not to address these issues because of this extensive literature, and because of the ongoing rapid change in treatment. Indeed, between the time of writing of these articles and their publication, a number of landmark clinical trials have been

reported that will change breast cancer treatment. For example, days before the writing of this preface, the results of the CALGB 9343 study led by Kevin Hughes (the senior author of the article in this issue on treatment of older women) were published demonstrating that radiation therapy contributes little in the treatment of women over age 70 with small, hormone receptor–positive cancers. Similarly, in the last 9 months, practice standards for adjuvant systemic therapy have changed substantially based on strong data supporting the use of aromatase inhibitors in place of tamoxifen for postmenopausal women who have invasive breast cancer.

The articles in this issue address two major areas of breast cancer medicine of equal importance to surgical oncologists. The first is new technologies for breast cancer diagnosis and treatment. The first exciting area of interest is summarized by Michael Sabel and his colleagues at the University of Michigan in a review of immunotherapy of breast cancer. Following this, William Dooley and his colleagues from the University of Oklahoma examine and contrast the techniques available for nonsurgical ablative treatment of breast cancer. Lisa Newman from the University of Michigan examines the role for examination of benign epithelial cells for biomarkers indicative of breast cancer risk. David Sheldon from the Geisinger Clinic (and formerly from Roswell Park Cancer Institute) reviews the current status and future potential for individual prediction of breast cancer outcome and drug sensitivity.

The second section of this issue addresses the equally important issue of health care disparities. The evolution of breast cancer science will ultimately lead to eradication of breast cancer as a public health scourge. However, to achieve this goal requires that all women receive appropriate and high-quality care. Unfortunately, a large proportion of women receive substandard care. This inadequate treatment results in the unnecessary and premature death of many women in America and throughout the world. In addition, inappropriate treatment results in unnecessary suffering and disfigurement, even for those who ultimately survive the disease.

The first paper in this section addresses the treatment of older women. There is a large body of literature demonstrating that older women receive treatment that is different from that of younger women with similar disease. This is in part due to their exclusion from clinical trials such as the NSABP B-06 and most adjuvant systemic therapy trials. Kevin Hughes and his associates at Massachusetts General Hospital address this issue in a thoughtful review. As previously noted, Dr. Hughes was also the lead investigator on the CALGB trial that was recently published demonstrating little or no value to radiation after lumpectomy for older women with small hormone receptor–positive cancers.

The article that follows addresses the factors associated with omission of standard treatment. There is good evidence that women who undergo surgery for breast cancer in hospitals and by doctors with low annual case

volumes are more likely to die from breast cancer than women treated in high-volume settings with similar cancers. Because women do not die of the surgery itself, this relationship with volume has been perplexing. Emerging data demonstrate that women treated in such settings are less likely to receive stage-appropriate adjuvant therapy, a factor possibly accounting for worse outcome. Because it is not feasible for all women to be treated at a major cancer center with high surgical volumes, it is necessary to develop mechanisms to assist doctors in assuring that patients receive appropriate follow-up care after surgery. Nina Bickell and her colleagues at the Mount Sinai School of Medicine in New York are pioneering techniques to work with doctors in practice in low volume settings to assure high-quality care for all patients. Her work, largely unknown to surgeons, has the potential to affect breast cancer practice across America and to support the role of the general surgeon and surgical oncologist in the small communities in our country.

Finally, the last article addresses what may be one of the most vexing and troublesome areas of cancer medicine. The way that individuals with cancer are treated does not strictly depend upon who treats them and where they are treated. There is strong evidence that even at major centers, treatment is also highly affected by financial resources, ethnic background, and race. These disturbing findings are a call for action to assure that we eliminate disparities based on wealth, ethnicity, and race. Thelma Hurd and her associates from Roswell Park Cancer Institute provide a detailed and compelling review of these factors as they affect breast cancer treatment in America.

This collection of articles represents a departure from the common monographs on breast cancer. They do not address day-to-day issues on treatment. However, they resonate on global issues that affect all surgical oncologists and that all of us need to consider in our daily practice, and in how we work to improve the care for patients and the health of our community.

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