

Conservative Management of

# BREAST CANCER

*New Surgical  
and  
Radiotherapeutic Techniques*

JAY R. HARRIS  
SAMUEL HELLMAN  
WILLIAM SILEN

# CONSERVATIVE MANAGEMENT OF BREAST CANCER

NEW SURGICAL  
AND  
RADIOTHERAPEUTIC  
TECHNIQUES

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## Preface

Cancer of the female breast is newly diagnosed in about 100,000 women annually in the United States alone. The incidence has steadily increased each year since 1966, before which it had remained stable for about 30 years. Until about 1970, the majority of patients with breast cancer in the United States underwent classical radical mastectomy, popularized by Halsted in 1894 and considered by many to be the standard against which all other therapies are to be judged.<sup>1, 2</sup> Despite the position occupied by radical mastectomy, European physicians had begun to explore the feasibility of less mutilating treatments as early as the 1940s. Until very recently, however, most American physicians were unwilling to discard radical mastectomy, primarily because it fulfilled the tenets of good cancer surgery by encompassing the local lesion widely and by removal of the lymph nodes in the axilla, which were thought to be the first line of defense against widespread dissemination of the disease.

Many factors have led to the recent re-examination of the place of radical operations in the treatment of this common defense. First was the realization that the mortality rate from breast cancer has remained remarkably stable since 1949 despite the prevalence of radical mastectomy as the treatment most often used in women with breast cancer.<sup>3</sup> In addition, it became apparent that whatever the treatment, close to 80% of all women with breast cancer ultimately die of or with the disease.<sup>4</sup> The realization that the excellent results achieved by radical mastectomy had in many respects been accomplished by an extremely refined process of selection of cases also focused attention on the roughly

40% of unfortunate patients who had "inoperable" disease.<sup>5</sup> The outcomes of many prospective well-controlled trials in recent years have challenged the supremacy of radical mastectomy and have indicated that even simple mastectomy when combined with adequate radiotherapy is at least the equal of the more mutilating procedure.<sup>6</sup> In addition, the failure of more extensive surgical therapy including resection of the internal mammary lymph nodes to improve the results of radical mastectomy alone has dampened enthusiasm for the radical surgery approach.<sup>7</sup>

Simultaneously, a better understanding of the biology of breast cancer has focused attention on the fact that breast cancer is frequently disseminated systematically, even at the time of initial diagnosis. It has become apparent that the axillary lymph nodes are frequently not the excellent first line of defense they were once thought to be and that involvement of these nodes may be mainly a prognostic indicator of the response of the host of the disease. In addition, it is clear that there may not be an orderly progression of breast cancer from primary site to axillary nodes to systemic spread; thus, an evaluation of various therapies in terms of adequacy and regional control has received increasing attention. The demonstration that adjuvant systemic therapy has significantly improved survival is consonant with the hypothesis that the heretofore neglected systemic dissemination is an important determinant of the ultimate poor outcome in a large proportion of patients with breast cancer.<sup>8, 9</sup>

There has been a continued but limited experience with radiation either alone or in combination with conservative surgery during this period. With a re-evaluation of our concepts of breast cancer, procedures using modern radiation therapy techniques are receiving increasing attention. We felt it would be useful to call together many of the investigators from the United States and Europe to review the current status of procedures designed to minimize mutilation at the same time that adequate local control and ultimate outcomes are not mitigated. It was our goal also to improve understanding, standardize terminology, and reach consensus on these new horizons in the treatment of breast cancer.

The meeting was held in Boston, May 20 to 22, 1982; 30 investigators participated. Formal papers were presented in eight sessions. At the end of each session there was a discussion and an attempt to develop a consensus as to the current state of the art. This book includes each of these presentations, editorially modified when appropriate, and grouped as presented in the sessions. The editors have then used their notes, tape recordings of the discussions, and a reconsideration of the manuscripts to provide discussions and consensus when the latter is possible. A final review of the agreed upon state of the art is presented at the end. The papers represent the views of the various participants and are authored by them. While we have attempted to present the "sense" of the meeting, the editors accept full responsibility for the summaries and attempts at consensus.

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