

BREAST CANCER

DIAGNOSIS & TREATMENT

IRVING M. ARIEL
JOSEPH B. CLEARY

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To all women who have suffered from breast cancer as exemplified by MARILYN FIXMAN (1928–1980), who died in the prime of life 15 years after a radical mastectomy. She personified femininity and loveliness and courageously helped candidates for mastectomy as a volunteer in “Reach for Recovery.” She demonstrated that the time from the first diagnosis of breast cancer until death (if inevitable) could be productive and meaningful.

NOTICE

Medicine is an ever-changing science. As new research and clinical experience broaden our knowledge, changes in treatment and drug therapy are required. The editors and the publisher of this work have checked with sources believed to be reliable in their efforts to provide drug dosage schedules that are complete and in accord with the standards accepted at the time of publication. However, readers are advised to check the product information sheet included in the package of each drug they plan to administer to be certain that the information contained in these schedules is accurate and that changes have not been made in the recommended dose or in the contraindications for administration. This recommendation is of particular importance in connection with new or infrequently used drugs.

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Preface

A medical revolution had taken place in the management of patients with breast cancer. There was a change in the radical surgical approach which had been used for centuries. The radical mastectomy operation is now being replaced with less traumatic procedures. After conservative surgery, radiation therapy is strongly advocated as a means of destroying any residual cancer within the breast. The multiple disciplinary approach of treating breast cancer invited questions and speculations. The discoveries in chemotherapy, immunotherapy, endocrine therapy, etc., each play a role in the total treatment of the patient. There resulted an avalanche of studies from specialists advocating their own therapies. My approach was to present a current and true update regarding the indications, complications, and results for treating the different types and stages of breast cancer. A unified method for reporting end-results is presented so that the reader could decide what was the best method or combination of methods for various subsets of patients with cancer. It is the hope of this editor that the indications, techniques, complications, and end-results of each modality are objectively presented.

A review of the efforts made to cope with breast cancer in the past is developed in Chapter 1. The attitude of a physician evaluating a patient suspect or proved of having breast cancer is summarized in Chapter 2.

Since practically nothing is known about the exact etiology of breast cancer, a quest is necessary to discover which patients are at risk and which factors contribute to that risk. This subject is dis-

cussed in Chapter 3. Chapter 4 is devoted to the role of heredity in the etiology of breast cancer and Chapter 5 presents the physiologic and pathologic aspects of fibrocystic disease. Chapter 6 lists the criteria for the identification of high risk patients and the establishment of a special surveillance clinic for their monitoring.

Accurate and precise classification is mandatory and is presented in Chapter 7. At present there are about thirty different types of breast cancers which are based on pathologic criteria. The pathology of breast cancer is discussed in Chapter 8. The employment of relatively new chemical identifiers, the "hormone receptors," is discussed in Chapter 9. The body's mechanism is a most important factor in the efforts to control cancer and this is presented in Chapter 10.

Section IV discusses our present methods of detecting and diagnosing breast cancer. Chapter 11 presents the results of mammographic screening of many women and gives the number of cancer so diagnosed and their prognosis. Chapter 12 presents the effects of mammography in detecting, describing, and diagnosing breast cancer. Imaging techniques other than mammography as well as biologic markers that may give clues for the detection of breast cancer are presented in Chapters 13 and 14. Chapter 15 is devoted to the different techniques for obtaining a biopsy.

Section V presents various options open to the physician for "curing" a patient with breast cancer and covers Chapters 16 to 25.

The management of clinically nonpalpable breast cancer (although not early cancer) is presented in

Chapter 16. If the decision is made for local excision and radiotherapy, the indications and techniques of surgery are presented in Chapter 17, and the radiation factors and results in Chapter 18. The choice of operative procedures are then discussed. Chapter 19 discusses the role of modified mastectomy. Chapter 20 deals with the radical mastectomy, presenting the indications and accomplishments of each type of operation, while Chapter 21 covers extended radical mastectomy. Radiation therapy is discussed in some detail in Chapter 23.

The incidence, methods of treatment, and prognostic significance or regional recurrence are detailed in Chapter 24.

A philosophy is developing in that cytotoxic chemotherapy would be beneficial as the first line of attack and this is discussed in Chapter 25.

Chapter 26 deals with adjuvant cancer therapy, its beneficial results, indications, and complications.

The role of surgery that includes the incidents, prognostic significance, and results of surgical treatment of regional recurrences is discussed in Chapter 27. The role of hormone manipulation and cancer chemotherapy are presented in Chapters 28 and 29. The indications and accomplishments of radiation therapy as a palliative procedure are detailed in Chapter 30. The roles of interferon and other biologics in the management of advanced breast cancer are discussed in Chapter 31.

Rarely will a breast cancer grow to huge crippling proportions after exhausting all other forms of treatment and remain localized. In such instance

interscapulomammothoracic amputation offers palliation and may even prolong life (Chapter 32).

An overview of accomplishments by the reconstructive surgeon is presented in Chapter 33.

Section VIII includes treatment of nipple disease and cancer (Chapter 34), inflammatory cancer (Chapter 35), and what one does with the opposite breast in a patient with cancer on one breast (Chapter 36). Breast disease in children is presented in Chapter 37.

Chapter 38 deals with the treatment of the pregnant woman who develops breast cancer during her pregnancy. Chapter 39 discusses the many unusual breast cancers, such as melanoma arising in the skin of the breast, or those rare cancers arising from the supporting structures. The rare development of cancer in the male breast is covered in Chapter 40.

Section IX represents a relatively new but well-deserved dimension in a medical book. It deals with the patient's reactions and rights. Chapters 41 and 42 discuss the emotional aspects of the patient, and Chapter 43 discusses a most worthwhile practice whereby women who had previously been subjected to a mastectomy come to the hospital to give solace to candidates for breast surgery.

The book closes with Chapter 45 that deals with the laws of different states to protect the patient against unscrupulous practices.

IMA

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Part One

Introduction



INTRODUCTION

Crises of the mind is no accident in modern history. It is the result of that new movement for the development of individual personality (1) the pursuit of freedom and self-expression toward their own ends and (2) the pursuit of knowledge and self-expression in nature, which is the result of a scientific process. The danger will arise when the development of the mind is not through the new and old, but through the old and new, which is the result of a scientific process. The danger will arise when the development of the mind is not through the new and old, but through the old and new, which is the result of a scientific process.

It is a matter of fact that the new movement for the development of individual personality is a movement for the development of individual personality. It is a matter of fact that the new movement for the development of individual personality is a movement for the development of individual personality.

Modern civilization is a result of the new movement for the development of individual personality. It is a matter of fact that the new movement for the development of individual personality is a movement for the development of individual personality.

WOMEN'S MOVEMENTS THROUGHOUT HISTORY

How women perceive their history has been a historical process through the ages. It is a matter of fact that the new movement for the development of individual personality is a movement for the development of individual personality. It is a matter of fact that the new movement for the development of individual personality is a movement for the development of individual personality.



1

Breast Cancer A Historic Review: Is the Past Prologue?

Irving M. Ariel, M.D.

Let us not cast aside things that belong to the past, for only with the past can we weave the fabric of the future.

Anatole France

INTRODUCTION

Cancer of the breast is as ancient as medical history. The two major forces that have dominated the development of treatment policies are (1) the attitudes of women who suffer from cancer toward their breasts; and (2) developments in medical science, spurred on by medical pioneers.⁵⁹ This chapter will attempt to trace the development of treatment policies through the ages and explore how some present-day techniques have developed from ancient concepts and methods of treating breast cancer.⁴⁰

It is a pleasure to acknowledge my great indebtedness for this brief historic review to many sources, especially to the erudite and compre-

hensive presentations of William A. Cooper,¹⁹ Edward Lewison, David Schechter,⁷³ and the late George Degenshein;²² and Bernice Sachs,⁷¹ for her history of women's attitudes toward their breasts.

WOMEN'S ATTITUDES TOWARD THEIR BREASTS

How women perceive their breasts has been a dominant force through the ages. It determines the willingness or reluctance of women to lose their breasts, and the reluctance of surgeons to do that which women accept unwillingly. The female breasts have been acclaimed universally through the centuries as symbols of beauty.⁸⁷ In art, literature, theater, movies, television,

and advertising, the female breasts are glorified. These modified sweat glands are defined in a mundane manner in Gray's *Anatomy* as follows:

The mammae secrete the milk and are the accessory glands of the generative system. . . . In the female they are two large hemispherical eminences lying within the superficial fascia and situated on the front and sides of the chest; each extends from the second rib above to the sixth rib below, and from the side of the sternum to the mid-axillary line. Their weight and dimensions differ at different periods of life and in different individuals.²⁷

These two hemispheres filled with adipose, glandular, and fibrous tissue have been the objects of constant medical debate regarding the treatment of the physiologic and pathologic changes that occur in them. In view of the attitudes, albeit often exaggerated, toward the female breast, is it any wonder that a woman with normal breasts except for the presence of an asymptomatic lump (and in some instances no lump, but a diagnosis made by mammographic examination) is loathe to have her breast amputated?^{28,29} (Fig. 1-1.)

Historically, this is a complete turnabout. König, in 1893, wrote:



Figure 1-1 The martyrdom of St. Agatha by Anthony Van Dyck. The inserts: Top (from Scultetus) and bottom (from Milne) show the instruments used for removal of the breast as a means of torture, later developed to treat breast cancer.