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**TREATMENT OF CANCER AND ALLIED DISEASES**  
SECOND EDITION

VOLUME IV

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**Tumors of the Breast, Chest, and Esophagus**

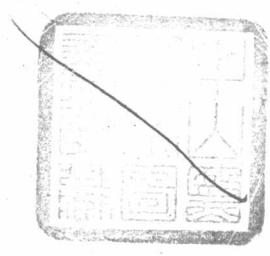
BY SIXTY-SEVEN AUTHORS

*Edited by* **GEORGE T. PACK, M.D., F.A.C.S.**

*and* **IRVING M. ARIEL, M.D., F.A.C.S.**



*With 650 Illustrations*



**TREATMENT OF CANCER AND ALLIED DISEASES**  
Second Edition

**Volume IV: Tumors of the Breast, Chest, and Esophagus**

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**TREATMENT OF CANCER AND ALLIED DISEASES**  

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**SECOND EDITION**

**Volume IV: Tumors of the Breast, Chest, and  
Esophagus**

**TREATMENT OF CANCER AND ALLIED DISEASES**  
**SECOND EDITION**

- I: PRINCIPLES OF TREATMENT
- II: TUMORS OF THE NERVOUS SYSTEM
- III: TUMORS OF THE HEAD AND NECK
- IV: TUMORS OF THE BREAST, CHEST, AND ESOPHAGUS
- V: TUMORS OF THE GASTROINTESTINAL TRACT, PANCREAS,  
BILIARY SYSTEM, AND LIVER
- VI: TUMORS OF THE FEMALE GENITALIA
- VII: TUMORS OF THE MALE GENITALIA AND THE URINARY SYSTEM
- VIII: TUMORS OF THE SOFT SOMATIC TISSUES AND BONE
- IX: TUMORS OF THE SKIN: LYMPHOMAS AND ALLIED DISEASES

*Dedicated to the memory of*

**WILLIAM S. HALSTED and EVARTS A. GRAHAM**

surgeons of the late generation, whose investigative, technologic, and pedagogic accomplishments have profoundly influenced the character and substance of this book. They are the exemplars of the ideal surgeon as characterized by Guy de Chauliac, the master surgeon of Montpellier, in his extraordinary book *Grande Chirurgie*, published in 1363.

*“Let the surgeon be well educated, skillful, ready and courteous. Let him be bold in those things that are safe; fearful in those that are dangerous, avoiding all evil methods and practices. Let him be tender with the sick, honorable to men of his profession, wise in his predictions; chaste, sober, pitiful, merciful; not covetous nor extortionate; but rather let him take his wages in moderation, according to his work, and the wealth of his patient, and the issue of the disease, and his own worth.”*

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# Preface

Cancer of the thoracic region is the most common neoplasm afflicting human beings. In the United States, during the year 1959, 56,615 individuals died from cancer of the breast and respiratory system (22,720 of breast cancer; 33,895 of cancer of the respiratory tract). This death toll, which comprised almost one fourth of all deaths (253,183) from cancer in the United States in 1959, emphasizes the need for more aggressive methods of combating neoplasms arising in this region.

The treatment of tumors involving the thoracic region has undergone radical evolutionary changes in recent years. A bolder surgical approach has broken down barriers that previously defined anatomic boundaries for treating a given cancer. For example, the orthodox technic for treating breast cancer—namely, a classic radical mastectomy—has been extended to include such anatomic regions as the chest wall, the internal mammary chain of lymph nodes, the mediastinal lymph nodes, the supraclavicular lymph nodes, and, for certain extensive lesions, an associated interscapulothoracic amputation. A surgeon treating mammary cancer cannot limit his approach exclusively to the breast and axilla but must be equipped to extend the operation to include contiguous structures when indicated.

This volume presents a comprehensive description of all currently accepted methods of treatment for the host of neoplasms which

arise in or extend to the thoracic cage and its contents. An effort has been made to treat this anatomic site as a unit and to apply lessons learned in the sphere of one surgical subspecialty (e.g., thoracic surgery) to benefit patients bearing a form of cancer often treated by surgeons of another subspecialty (e.g., breast cancer). Authorities who advocate departures from previously accepted procedures—such as internal mammary lymph node dissection combined with radical mastectomy for breast cancer, or radical lobectomy or radical pneumonectomy for lung cancer—describe in detail not only the technics but also the indications for and the accomplishments and complications of these newer procedures. The newer methods of irradiation, which are often more radical but better tolerated by the patient, may offer great palliation to the patient with incurable cancer, complement surgery in some instances, and compete with surgical extirpation in others. Irradiating the internal mammary chain of lymph nodes, for example, might in certain instances obviate the need for further surgical excision.

The subject matter is divided into three main sections. The first section deals with tumors of the breast and includes a general survey of the present-day management of mammary cancer; chapters on chronic mastitis and benign tumors, with emphasis upon their possible relationship to breast cancer; a step-by-step description of the classic radical

mastectomy; and a detailed description, well illustrated, of each surgical departure from this procedure, including the conservative mastectomy and radiation therapy, as well as the more radical surgical technics. The accomplishments and technics of orthovoltage and high-energy irradiation are reviewed; separate chapters are devoted to sarcoma of the breast, the treatment of cancer of the male breast, postmastectomy edema of the arm, and the role of hormonal therapy in the control of mammary cancer, including a discussion of the technic and results of hypophysectomy.

The second section is devoted to the treatment of intrathoracic tumors. Included here are discussions of physiologic alterations in chest surgery, anesthesia, and the preoperative and postoperative care of patients subjected to thoracic surgery. The treatment of specific tumors, including benign lung tumors, pulmonary cysts, bronchial adenoma, tumors metastatic to the lung, and tumors of the chest wall, trachea, thymus, mediastinum, and heart, is fully considered. The various methods of treatment applicable to primary lung cancer are described by authorities well experienced in the technics which they advocate in this volume. Included are chapters on the treatment of lung tumors by simple lobectomy or segmental resection, the use of radical lobectomy, the various approaches for standardized pneumonectomy, and the technic of radical pneumonectomy. The role of radiation therapy, including the advantages and limitations of the available technics, is considered, as are the newer technics of interstitially irradiating certain intrathoracic cancers found to be inoperable at the time of thoracotomy. The avail-

ability of radioisotopes offers promise of taking advantage of the exposed cancer at the time of exploration to infiltrate it with radioactive sources for palliation and possible control of the cancer. An appraisal of the over-all clinical problem of lung cancer is offered for orientation, and a comparison of the results of present-day therapy with those obtained by formerly available technics of treating lung cancer is made.

The third section covers the treatment of tumors of the esophagus and includes descriptions of the various surgical procedures available, a review of the improved methods of esophageal reconstruction, and a discussion by eminently qualified therapists of the radiation treatment of this form of cancer, including orthovoltage irradiation, intraluminal radium therapy, rotation roentgen therapy, and high-energy irradiation.

Because the final answers regarding the relative efficacy of the various methods for treating cancer of the breast, chest, and esophagus await further clinical evaluation, the Editors have deemed it advisable to include all of the currently accepted technics, with their limitations and accomplishments, so that the reader will have at hand the information required for deciding on the best course of treatment available today for a given cancer patient.

The Editors are indebted to the sixty-seven authorities who have contributed from their rich clinical experience to make this book possible. Their patient cooperation along the way is deeply appreciated.

G. T. P.  
I. M. A.

*New York*

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