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Lung Cancer

Foreword by James D. Cox, MD,
Waun Ki Hong, MD, and Jack A. Roth, MD

With 34 Illustrations



Springer

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Cover illustration: © Fiona King/Images.com

Library of Congress Cataloging-in-Publication Data

Lung cancer / editors, Frank V. Fossella, Ritsuko Komaki, Joe B. Putnam.

p. ; cm. — (M. D. Anderson cancer care series)

Includes bibliographical references and index.

ISBN 0-387-95507-0 (s/c : alk. paper)

1. Lungs—Cancer. I. Fossella, Frank V. II. Komaki, Ritsuko III. Putnam, J. B. (Joe Billy),
1953– IV. Series.

[DNLM: 1. Lung Neoplasms—therapy. WF 658 L96063 2002]

RC280.L8 L76533 2002

616.99'424—dc21

2002070465

ISBN 0-387-95507-0

Printed on acid-free paper.

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Printed in the United States of America.

9 8 7 6 5 4 3 2 1

SPIN 10879972

www.springer-ny.com

Springer-Verlag New York Berlin Heidelberg
A member of BertelsmannSpringer Science+Business Media GmbH

FOREWORD

The care of patients with cancer has been a multidisciplinary effort throughout the 60-year history of M.D. Anderson Cancer Center. In the early years, cancer care at M.D. Anderson involved primarily the disciplines of diagnostic imaging, pathology, and a treatment modality. The complexity of these interrelationships has increased at a seemingly exponential rate, especially in the last decade. Technological advances, introduction of new drugs, improvements in supportive care, and exciting findings in basic and translational research have placed demands on the entire medical team for constant education and coordination.

Lung cancer is a leading cause of death from cancer throughout the world. It is by far the leading cause of death in all urbanized countries, and it has rapidly risen in importance in developing countries. An intensely committed group of physicians and laboratory investigators has been gathered at M.D. Anderson to treat lung cancer. Their understanding of the diseases involved and their commitment to thoughtful, carefully coordinated collaborations in the care of patients with lung cancer are reflected in this monograph, the second volume in the M.D. Anderson Cancer Care Series.

The subjects in this book are presented in much the order a patient might perceive events: symptoms and signs, diagnostic imaging, and biopsy and pathologic diagnosis, followed by differing sequences of treatment depending upon the particular disease. Surgical resection is the most successful treatment for early cancer of the lung, but efforts to enhance the benefit of surgery with chemotherapy and radiation therapy are also explored. Treatment of advanced cancer of the lung involves, at least, interactions between the medical oncologist and the radiation oncologist and often, in the case of non-small cell cancer of the lung, the thoracic surgeon. The distinction was made years ago between small cell carcinoma of the lung, a tumor strikingly responsive to chemotherapy and radiation therapy, and non-small cell carcinomas (including squamous cell carcinoma, adenocarcinoma, and large cell carcinoma), which are not very responsive to these treatments. Although the terms "small cell lung cancer" and "non-small cell lung cancer" are preserved for simplicity of expression, important differences in subcategories within these categories are recognized and play a role in treatment decisions.

The commitment to patient care occurring in the setting of clinical investigations is implied throughout the chapters in this book. With every patient seen, the goal is definitive treatment with curative intent if at all

possible. Since the results of current standard treatments are not as successful as they could be, developments from the laboratory, new approaches to focusing radiations, new drugs, and therapeutic agents derived from research in molecular cell biology are an important part of therapeutic considerations for individual patients. Clinical research is essential if progress is to be made. By agreeing to enrollment in a protocol, a patient may become a collaborator in this enterprise as well as a recipient of the best available care.

The final chapters of *Lung Cancer* reflect important new initiatives. The first is prevention and early detection. The final chapter suggests the bases for future translations into clinical practice.

The interplay and coordination among all of the physicians and laboratory investigators contributing to this monograph cannot be overemphasized. There are few, if any, other types of cancer that call for such broad understanding and technological expertise among the many physicians involved as does lung cancer. The expertise and commitment the contributing physicians and scientists bring to this treatise reflect only a part of the commitment they bring to the care of their patients.

James D. Cox, MD
Waun Ki Hong, MD
Jack A. Roth, MD

PREFACE

It is estimated that 450,000 people in the United States will die of lung cancer and other tobacco-related disorders this year. The relationship between smoking and lung cancer is inarguable. It is strongly believed that changes in population behavior could in time almost eliminate this disease, and efforts to bring about such changes remain a challenge for those involved with public policy.

In contrast to efforts in breast cancer prevention, which have demonstrated that antiestrogens are effective in reducing the risk of disease development in high-risk women, attempts to identify pharmacologic interventions effective in secondary prevention of lung cancer have thus far met with little success. There remains, however, a strong interest in this area, and a number of novel agents are currently being tested in clinical trials.

The combined-modality treatment approach has resulted in modest gains in the survival of lung cancer patients. Specifically in locally advanced disease, neoadjuvant systemic therapy followed by local therapies, including surgery and radiation therapy, has had a favorable impact on disease-free and overall survival. The availability of novel cytotoxic agents and drugs with substantial antitumor activity as well as target-specific biologics has the potential to further favorably alter the prognosis of lung cancer patients.

This volume reflects M. D. Anderson Cancer Center's commitment to the multidisciplinary disease-oriented approach—an approach that has evolved here over a number of years and is contributing to the progress in patient outcomes. We would like to thank the volume editors—Dr. Frank V. Fossella, Dr. Ritsuko Komaki, and Dr. Joe B. Putnam, Jr.—for their significant efforts in putting this book together. This volume is a tribute to their continued dedication, as well as that of the faculty in their departments, to a resolution of the lung cancer problem. We would also like to thank the Department of Scientific Publications for their assistance with this volume, especially Walter Pagel for helping develop the series, Stephanie Deming for editing the manuscript, and Leigh Fink for editorial assistance, including help with permissions and illustrations.

Aman U. Buzdar, MD
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