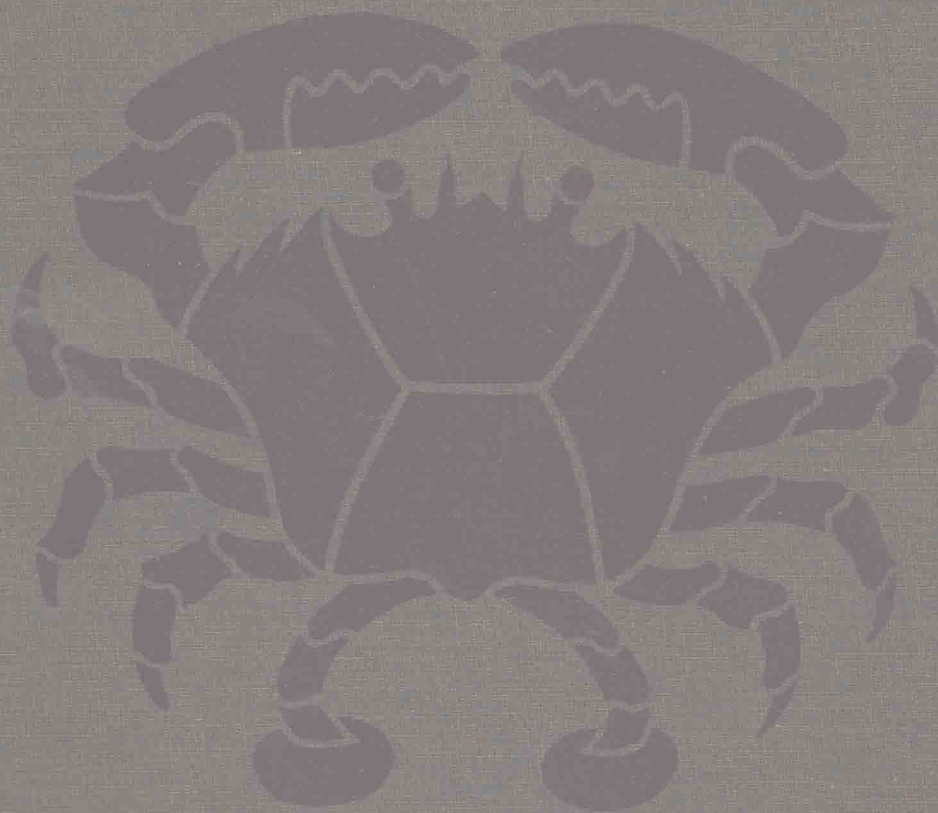


Head and Neck Oncology Controversies in Cancer Treatment



Edited by
A. Robert Kagan/John W. Miles

Head and Neck Oncology

Controversies in Cancer Treatment

Edited by

A. Robert Kagan, M.D.

Department of Radiation Therapy
Southern California Permanente Medical Group
Los Angeles, California

John W. Miles, M.D.

Department of Otolaryngology
Southern California Permanente Medical Group
Los Angeles, California



G. K. Hall Medical Publishers
Boston, Massachusetts

Copyright © 1981 by G. K. Hall & Co.

G. K. Hall Medical Publishers
70 Lincoln Street
Boston, MA 02111

All rights, including that of translations into other languages, reserved.
Photomechanical reproduction (photocopy, microcopy) of this book or parts thereof without special permission of the publisher is prohibited.

81 82 83 84 / 4 3 2 1

Head and neck oncology.

(Controversies in cancer treatment)

Bibliography.

Includes index.

Contents: The impact of radiation biology on patient management / Amos Norman—Diagnosis, follow-up, and treatment of carcinoma in situ of the vocal cord / Alden H. Miller—The management of carcinoma in situ of the larynx / Patrick J. Doyle—[etc.]

1. Head—Cancer—Therapy. 2. Neck—Cancer therapy.
3. Head—Cancer. 4. Neck—Cancer. I. Kagan, A. Robert (Arthur Robert), 1936— II. Miles, John, 1930—
III. Series. [DNLM: 1. Head and neck neoplasms—Therapy. WE 707 H432]

RC280.H4H39 616.99'491

81-2908

ISBN 0-8161-2169-9

AACR2

The authors and publisher have worked to ensure that all information in this book concerning drug dosages, schedules and routes of administration is accurate at the time of publication. As medical research and practice advance, however, therapeutic standards may change. For this reason, and because human and mechanical errors will sometimes occur, we recommend that our readers consult the *PDR* or a manufacturer's product information sheet prior to prescribing or administering any drug discussed in this volume.

Head and Neck Oncology

Controversies in Cancer Treatment

Harvey A. Gilbert, M.D.

Series Editor

Chief, Department of Radiology
Presbyterian Intercommunity Hospital of Whittier
Whittier, California

CONTRIBUTORS

Alando J. Ballantyne, M.D.
Department of Surgery
M.D. Anderson Tumor Institute
Houston, Texas

J. P. Bataini, M.D.
Institut Curie
Paris, France

François Beland, Ph.D.
School of Public Health
University of Michigan
Ann Arbor, Michigan

John Beumer III, D.D.S., M.S.
Department of Maxillofacial Surgery
UCLA School of Dentistry
Los Angeles, California

William C. Constable, M.B., Ch.B., D.M.R.T.
Division of Radiation Oncology
University of Virginia Hospital
Charlottesville, Virginia

Patrick J. Doyle, M.D.
Division of Otolaryngology
University of British Columbia
St. Paul's Hospital
Vancouver, British Columbia, Canada

Frederick R. Eilber, M.D.
Department of Surgery
Division of Oncology
UCLA School of Medicine
Los Angeles, California

David Elkon, M.D.
Division of Radiation Oncology
University of Virginia Hospital
Charlottesville, Virginia

François Eschwege, M.D.
Institut Gustave-Roussy
Villejuif, France

Juan V. Fayos, M.D.
Division of Radiation Therapy
University of Miami School of Medicine
Jackson Memorial Hospital
Miami, Florida

Peter J. Fitzpatrick, M.D., F.R.C.P. (C), F.R.C.R.
Department of Radiation Oncology
The Princess Margaret Hospital
Ontario Cancer Institute
Toronto, Ontario, Canada

Jack L. Gluckman, M.D., F.C.S. (S.A.)
Department of Otolaryngology and Maxillofacial Surgery
University of Cincinnati Medical Center
College of Medicine
Cincinnati, Ohio

Richard H. Jesse, M.D.
Department of Surgery
M.D. Anderson Tumor Institute
Houston, Texas

A. Robert Kagan, M.D.
Department of Radiation Therapy
Southern California Permanente Medical Group
Los Angeles, California

John A. Kirchner, M.D.
Department of Head and Neck Surgery
Yale University School of Medicine
New Haven, Connecticut

Walter Lawrence, Jr., M.D.
Division of Surgical Oncology
Medical College of Virginia
Virginia Commonwealth University Cancer Center
Richmond, Virginia

William Lawson, M.D., D.D.S.
Department of Otolaryngology
The Mount Sinai Medical Center
New York, New York

B. Lubinski, M.D.
Institut Gustave-Roussy
Villejuif, France

John W. Miles, M.D.
Department of Otolaryngology
Southern California Permanente Medical Group
Los Angeles, California

Alden H. Miller, M.D.
Department of Otolaryngology
USC School of Medicine
Los Angeles, California

Amos Norman, Ph.D.
Departments of Radiation Oncology and Radiological Sciences
UCLA School of Medicine
Los Angeles, California

Robert G. Parker, M.D.
Department of Radiation Oncology
UCLA School of Medicine
Los Angeles, California

Samuel L. Perzik, M.D.
Department of Surgery
Loma Linda University School of Medicine
Loma Linda, California

Harry C. Schwartz, D.M.D., M.D.
Division of Otolaryngology
Southern California Permanente Medical Group
Los Angeles, California

Donald A. Shumrick, M.D.
Department of Otolaryngology and Maxillofacial Surgery
University of Cincinnati Medical Center
College of Medicine
Cincinnati, Ohio

Max L. Som, M.D.
Department of Otolaryngology
The Mount Sinai Medical Center
New York, New York

F. Kristian Storm, M.D.
Department of Surgery
Division of Oncology
UCLA School of Medicine
Los Angeles, California

Elliot W. Strong, M.D.
Department of Surgery
Head and Neck Service
Memorial Sloan-Kettering Cancer Center
New York, New York

Barry S. Tepperman, M.D.
The Princess Margaret Hospital
Ontario Cancer Institute
Toronto, Ontario, Canada

Contributors

Jose J. Terz, M.D.

Department of General and Oncologic Surgery
City of Hope National Medical Center
Duarte, California

Paul H. Ward, M.D., F.A.C.S.

Department of Surgery
Division of Head and Neck Surgery
UCLA School of Medicine
Los Angeles, California

We would like to dedicate this book to
Alden Miller, M.D.
Clay Whitaker, M.D.
William Simpson, M.D.
Juan del Regato, M.D.
Chahin Chahbazian, M.D.
in appreciation for their training and friendship.

John W. Miles, M.D.
A. Robert Kagan, M.D.

SERIES PREFACE

The impetus for this series came from the intellectually and emotionally difficult experiences my colleagues and I have encountered when attempting to make decisions about the best treatments for patients who have cancer. The patient's and physician's anxiety about the disease and the toxic treatments necessary for its eradication hamper reasoned discussions and charge the atmosphere with hidden messages. The physician's own fears of death and failure to cure enhance the intensity of this interchange. Unfortunately the resultant decision in each patient's case often only partly rests on scientific doctrine. Science deals predominantly with measurable quantities such as survival, but the quality of life as it is perceived in each situation is equally important. Therefore discussion of controversy in cancer is not and should not be only a cataloging of scientific facts but also must contain intuitive and affective measurements of human value.

Each of the books in this series is unique. Some editors chose to explore a vast range of topics; others chose to narrow down the number of issues and explore them in greater depth. Not all sides of each issue are presented, for the editor felt in some cases that only one or two points of view should be elaborated. For some, only one point of view was thought necessary, in which instances the contributor included a discussion of the standard, accepted opinion in addition to setting forth his or her position. The series was conceived of as a whole; as a result some issues are discussed in only one book because of space constraints, but would have been appropriate for other books in the series as well. On the other hand, other controversies are included in more than one book and are addressed by a different group of discussants in each; these controversies were repeated because of their universal appeal and current interest.

The editors for these books were selected because they possessed the following attributes:

1. a high level of expertise in the fields;
2. respect of their colleagues as fine clinicians;
3. continual questioning of the standard dogmas, and spending their professional lives attempting to improve the standard of medical practice; and
4. they are kind, caring individuals who value the patient-physician relationship.

Controversy is inherent in oncology; I am hopeful that the reader will gain significant insights toward making better decisions in managing patients.

I would like to acknowledge Dolores Groseclose for editorial assistance and Deanne, Jason, and Jill Gilbert for their support.

Harvey A. Gilbert
Series Editor

INTRODUCTION

Legitimate differences of opinion exist in many aspects of the management of head and neck tumors. One's appraisal of tumor size, the absence or presence of adjacent tissue (including bone) infiltration, adenopathy, and histologic grading may differ from that of one's colleagues. The morbid residue of curative treatment affects the quality of survival. Individualization and clinical judgment are important for proper management decisions. Unfortunately, clinical judgment cannot be quantified. Statistical evaluation rarely deals with patient selectivity, intellectual prejudice, or technical competence.

Terz and Lawrence have shown that the fashionable desire for radiations combined with surgery cannot be supported by numbers. Elkon and Constable are more optimistic concerning combined therapies. Fayos and Beland have vividly demonstrated that sometimes skillful treatment in the wrong patient ends in unnecessary morbidity. Ballantyne questions the superiority of radiations over surgery for lesions of the anterior tongue and floor of the mouth. Need the reader be reminded that Ballantyne's institution, M. D. Anderson Tumor Institute, is internationally recognized for its proficiency in radiation therapy as well as in surgery?

The authors selected for this book are all experts in the field of head and neck cancer. Each was asked to take a point of view, rather than review the literature and present an overview for patient management. We have asked the authors to present their data and their opinions, while anticipating that their respected colleagues will do the same. The format of this book is not that of a debate, but an information center to provide medical opinions side by side. Readers are to digest and resolve controversy in the hope that their patients will profit from this experience.

Although each author's point of view is well known, we feel there is much to be gained intellectually and scientifically in soliciting these opinions

side by side. In this way we hope to encourage a frank presentation and representation of their clinical work.

The editors have supported a basic mistrust of survival percentages, which do not mediate the intuitive. Although the ability of language to communicate is at times partial, we have asked our colleagues to grapple with some of the major problems in head and neck cancer in a personal manner.

The expression of experiential data is usually neglected because they cannot be assigned numbers. We believe that experiential descriptive data are as worthwhile as numerical, statistical data and can be expressed clearly and simply. Judgment and opinion will always be controversial since they are largely perceptual and unsystematic, limited by disciplinary boundaries.

Self-education is possible either by making one's own mistakes or by learning from the misfortunes of others. The knowledge gained from books can mature our judgment and prepare us, without causing actual danger to our patients as a result of errors in clinical decisions.

As students our training was rich in a now lost oral tradition. The patient with head and neck cancer needs a physician who can understand the empiric and analytic difficulties largely ignored in our scientific journals and books. Ward's chapter elegantly supports the necessity of the oral tradition for comprehensive education.

The question as to whether the incidence of radiation-induced cancer should influence clinicians' choice of therapy is addressed first by Lawson and Som and then by Parker.

What manner of treatment, if any, should follow the histopathologic diagnosis of carcinoma in situ of the vocal cord (see Doyle and Miller)?

Intensive histopathologic examination of the larynx after laryngectomy has enriched our knowledge of the causes of vocal cord fixation. Radiation therapy continues to compete for management with salvage surgery (Battaini), partial laryngectomy (Kirchner), total laryngectomy (Shumrick and Gluckman), and postoperative radiation (Eschwege and Luboinski). Perhaps computed tomography (CT) will help to define the different anatomic causes of cord immobility or limited mobility and thereby lend strength unintentionally to radiation, surgery, or combined treatment. Controversy in this area, however, will indubitably continue.

Perzik formulates the view that the biologic potential of melanoma is seen at its inception, with a positive lymph node dissection merely indicating disseminated disease. Storm and Eilber propose that the removal of positive lymph nodes markedly improves survival. Have we not been "entertained" by similar arguments in adenocarcinoma of the breast?

Beumer and Schwartz address extremely important matters. The cured patient with mandibular necrosis or severe functional disability is scored as NED by the surgeon or radiation therapist. (The concept of NED—no evidence of disease—implies that the patient is alive and well.) This is an incorrect assessment because the quality of life is equally important to these patients. Clinicians should take a more active interest in a patient's sense of

dignity. To be alive and robbed of self-worth because of morbidity cannot be tabulated as a success, except by the most shallow clinician. To emphasize that life at any functional level is better than death should not be tolerated in the intellectual spirit of a multidisciplinary head and neck cancer conference.

Jesse and Strong discuss the issue of how extensive a neck dissection should be. Fitzpatrick and Tepperman demonstrate that radiation therapy of neck nodes can be successful but presents a complex biologic problem. Finally, Norman reviews the impact of research on our treatment. Must he destroy our illusions?

Controversy will continue in fields of medicine in which there are advances and progress. It is our purpose to explore some of these controversial areas in a constructive manner. Whether or not we have been successful is left to you, the reader, to judge.

CONTENTS

	Series Preface	xiv
	Introduction	xvii
Chapter 1	The Impact (?) of Radiation Biology on Patient Management Amos Norman	3
Chapter 2	Diagnosis, Follow-up, and Treatment of Carcinoma in situ of the Vocal Cord Alden H. Miller	13
Chapter 3	The Management of Carcinoma in situ of the Larynx Patrick J. Doyle	21
Chapter 4	Hemilaryngectomy for Cancer of the Vocal Cord with Fixation John A. Kirchner	25
Chapter 5	Laryngectomy for Cancer of the Larynx with Vocal Cord Fixation Donald A. Shumrick and Jack L. Gluckman	39
Chapter 6	Radiation Therapy Alone in Advanced Epidermoid Carcinoma of the Laryngopharynx with Emphasis on the Significance of Vocal Cord Fixation J. P. Bataini	51

Chapter 7	Cancer of the Larynx with Fixed Cord F. Eschwege and B. Luboinski	71
Chapter 8	Current Controversies in the Management of Cancer of the Tongue and Floor of the Mouth Alando J. Ballantyne	87
Chapter 9	An Inquiry on the Quality of Life after Curative Treatment Juan V. Fayos and François Beland	99
Chapter 10	Ineffectiveness of Combined Therapy (Radiation and Surgery) in the Management of Malignancies of the Oral Cavity, Larynx, and Pharynx Jose J. Terz and Walter Lawrence, Jr.	111
Chapter 11	The Value of Lymphadenectomy in Melanomas of the Head and Neck F. Kristian Storm and Frederick R. Eilber	127
Chapter 12	Treatment of Melanoma Samuel L. Perzik	141
Chapter 13	Mandibular Reconstruction Harry C. Schwartz	167
Chapter 14	Dental Extractions in the Irradiated Patient John Beumer III	209
Chapter 15	Cervical Lymph Node Metastases: The Place of Radiotherapy Peter J. Fitzpatrick and Barry S. Tepperman	233
Chapter 16	Modified Neck Dissection with and without Radiation Richard H. Jesse	247
Chapter 17	The Classical Radical Neck Dissection Elliot W. Strong	257
Chapter 18	Radiation-Induced Cancer of the Head and Neck: The Surgeon's Viewpoint William Lawson and Max L. Som	281