

Management of Gynecological Cancers in Older Women

Stuart M. Lichtman • Riccardo A. Audisio
Editors

Riccardo A. Audisio
Series Editor

Management of Gynecological Cancers in Older Women

 Springer

SIOG
INTERNATIONAL SOCIETY
OF GERIATRIC ONCOLOGY

Editors

Stuart M. Lichtman, M.D., FACP
Weill Cornell Medical College
New York
NY
USA

Riccardo A. Audisio, M.D., FRCS
Department of Surgery
St. Helens Teaching Hospital
St. Helens
Merseyside
UK

Series Editor

Riccardo A. Audisio, M.D., FRCS
Department of Surgery
St. Helens Teaching Hospital
St. Helens
Merseyside
UK

ISBN 978-1-4471-2215-9 ISBN 978-1-4471-4605-6 (eBook)
DOI 10.1007/978-1-4471-4605-6
Springer London Heidelberg New York Dordrecht

Library of Congress Control Number: 2012955405

© Springer-Verlag London 2013

This work is subject to copyright. All rights are reserved by the Publisher, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilms or in any other physical way, and transmission or information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed. Exempted from this legal reservation are brief excerpts in connection with reviews or scholarly analysis or material supplied specifically for the purpose of being entered and executed on a computer system, for exclusive use by the purchaser of the work. Duplication of this publication or parts thereof is permitted only under the provisions of the Copyright Law of the Publisher's location, in its current version, and permission for use must always be obtained from Springer. Permissions for use may be obtained through RightsLink at the Copyright Clearance Center. Violations are liable to prosecution under the respective Copyright Law.

The use of general descriptive names, registered names, trademarks, service marks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.

While the advice and information in this book are believed to be true and accurate at the date of publication, neither the authors nor the editors nor the publisher can accept any legal responsibility for any errors or omissions that may be made. The publisher makes no warranty, express or implied, with respect to the material contained herein.

Printed on acid-free paper

Springer is part of Springer Science+Business Media (www.springer.com)

Preface

The aging of the population has resulted in the recognition that all of the subspecialties of oncology will be primarily concerned with the care of older patients. While there is not one precise definition of the age of “geriatric” patients, it is clear that the aging of our society has necessitated a focus on the older segment of the population. It has long been recognized that the most significant risk factor for the development of cancer is aging. This together with the epidemiologic shift has resulted in a marked increase in the number of older patients with cancer. This will markedly increase the cancer burden [1]. Cancer compromises the life expectancy as well as the active life expectancy of older individuals. Cancer and cancer treatment may appear as one of the prime causes of disability in older individuals, not only of mortality.

The traditional ways in which cancer is studied, i.e., clinical trials focusing on younger, healthier patients, has left us with a void in the available data to manage the older patients in an evidenced-based fashion. Not only do these trials often fail to establish the validity of cancer treatment in the elderly, but they also fail to provide information related to the long-term complications of the treatment including decline in function [2]. In the 1988 American Society of Clinical Oncology (ASCO) Presidential Address, Dr. B.J. Kennedy encouraged the study of aging and cancer [3]. He stated, “... Our society need not ration how we will treat our disadvantaged members, but should continue to seek those preventive and positive measures that can shorten our later period of morbidity. A very major cancer load will persist well into the twenty-first century, even if the attempts at prevention are eventually a total success. There is a developing knowledge on aging. Care of the older person needs to be part of medical education and oncology education. Research will help attain a desirable quality of life with aging and a reduced morbidity.” We were pointed in the right direction, but these goals have proven to be somewhat elusive.

Since that time, studies of older cancer patients have revealed a significant amount of important clinical information. This has included the degree and severity of comorbidity and its effect on treatment, the role of polypharmacy, and the various social and financial problems facing older patients with cancer. The under-representation of older patients in clinical trials has been amply documented [4]. The adverse outcomes

of inadequate dosing and supportive care in both curative and palliative treatments have been demonstrated in a number of treatment settings. Even when clinical trials are available, barriers to participation of older patients have been shown to be primarily due to physician reluctance due to fear of toxicity, limited expectation of benefit, or agism. A number of important strides have been made in the evaluation of older patients through various methodologies of geriatric assessment. The comprehensive geriatric assessment (CGA) developed by geriatricians is a multidisciplinary evaluation of the older patient encompassing a number of important clinical domains [5]. Researchers in this area have shown that traditional oncology measures of performance are not adequate in older patients and that geriatric-specific measures (i.e., ADL, IADL) have a much greater predictive value [6]. Recent advances in geriatric oncology patient assessment were made by the publication of two important trials [7, 8]. These need to be validated in prospective trials but appear to be predictive and easy to administer.

There has been major interest shown in geriatric oncology by some oncology professional societies and organizations. In 1995, the Cancer and Leukemia Group B organized a Cancer in the Elderly Committee [9]. This has led to a number of completed and published studies in barriers to participation, supportive care, and cancer therapeutics. The newly formed Alliance (CALGB and NCCCTG) will strengthen this committee. The Gynecologic Oncology Group has recently formed an Elderly Taskforce and has initiated a clinical trial in ovarian cancer. ASCO has sponsored a clinical practice forum in 2000, "Cancer Care in the Older Patient," as part of their Curriculum series and has incorporated geriatrics in the ASCO University program. The annual meeting has included a number of Education Sessions, Clinical Science Symposia, and oral presentations emphasizing Geriatric Oncology including a Geriatric Oncology track. The International Society of Geriatric Oncology (SIOG) with its headquarters in Switzerland has implemented a number of taskforces to evaluate the current literature and make treatment recommendations. Its annual meeting is a forum for updates and discussions about moving the field forward. The National Comprehensive Cancer Network (NCCN) has published practice guidelines for Senior Adult Oncology. The Cancer and Aging Research Group have been particularly productive in the development of geriatric assessment. A major milestone is the *Journal of Geriatric Oncology*, Elsevier Publ., which began publication in 2010.

Despite all of the changes that have taken place in the past few years there is still much that needs to be done. There needs to be improvement in the assessment of the older patient to allow clinicians to appropriate treatment decisions. An easily administered, predictable measure is critical. Practical treatment questions include whether adjuvant therapy is appropriate based on potential benefit of treatment versus predicted survival; what is the best palliative regimen; when is best supportive care appropriate. Clinical trial participation needs to be encouraged. Clinical trial design, statistical analysis, and trials reporting need to incorporate the specific needs of older patients and provide practical information for the clinician. Endpoints need to be practical to the elderly, i.e., maintenance of independence, avoiding functional decline, and time without symptoms. The publication of large trials in which older

patients have participated should give age-associated data. This is now lacking [10]. When prospective investigations are not appropriate, feasible, or ethical, there is a case for conducting good quality observational studies; these can provide reliable answers to the numerous questions regarding the management of older cancer patients.

The appropriate care of older women with gynecological cancer is of critical importance. Aging is an associated increased risk of gynecological cancer with the exception of cervical cancer. Treatment of these disorders often requires multimodality therapy which requires an integrated team approach. Older women, many of whom have significant comorbidity, are at increased risk of toxicity and undertreatment. It is imperative for clinicians to be acquainted with the various aspects of management and how they apply to older women. This book has been published to address these needs. It can be used as a reference for residents and fellows as well as experienced physicians in surgery, radiation oncology, and medical oncology.

The book covers a broad range of topics. There is an extensive review of geriatrics including background and epidemiology, basic science, geriatric assessment, and pharmacology. The genetics of gynecological cancer and the modalities of radiation and surgery are reviewed. The diseases covered are ovarian, endometrial, cervical, vulvar, and vaginal cancers as well as sarcomas. There are discussions for each entity including primary therapy and relapsed therapy. The quality of life of older patients is emphasized in the chapters on psychological issues, sexual medicine, end of life care, and the role of palliative surgery.

Society has evolved over the past few decades in terms of how we view aging. Sixty-five years is, for the most part, not considered elderly. People are often very active into their seventies and eighties. Chronologic age should not be the sole parameter utilized in treatment decisions. Physicians caring for older women with gynecological malignancies need to be educated to these very important issues. Older patients need to be systematically evaluated to the degree necessary to make evidence-based decisions. In addition, studies in the basic sciences including the biology of aging need to be explored. As the older patients will become the majority of the patients that we evaluate and treat, they need to become the focus of our endeavors. Our elders deserve nothing less.

References

1. Edwards BK, Howe HL, Ries LA, et al. Annual report to the nation on the status of cancer, 1973–1999, featuring implications of age and aging on U.S. cancer burden. *Cancer*. 2002;94:2766–92.
2. Muss HB, Woolf S, Berry D, et al. Adjuvant chemotherapy in older and younger women with lymph node-positive breast cancer. *JAMA*. 2005;293:1073–81.
3. Kennedy BJ. Aging and cancer. *J Clin Oncol*. 1988;6:1903–11.
4. Hutchins LF, Unger JM, Crowley JJ, et al. Underrepresentation of patients 65 years of age or older in cancer-treatment trials. *N Engl J Med*. 1999;341:2061–7.
5. Cohen HJ, Feussner JR, Weinberger M, et al. A controlled trial of inpatient and outpatient geriatric evaluation and management. *N Engl J Med*. 2002;346:905–12.

6. Extermann M, Overcash J, Lyman GH, et al. Comorbidity and functional status are independent in older cancer patients. *J Clin Oncol.* 1998;16:1582–7.
7. Hurria A, Cirrincione CT, Muss HB, et al. Implementing a geriatric assessment in cooperative group clinical cancer trials: CALGB 360401. *J Clin Oncol.* 2011;29:1290–6.
8. Extermann M, Boler I, Reich RR, et al. Predicting the risk of chemotherapy toxicity in older patients: the Chemotherapy Risk Assessment Scale for High-Age Patients (CRASH) score. *Cancer.* 2012;118:3377–86.
9. Cohen HJ, Muss HB. The Cancer and Leukemia Group B Cancer in the Elderly Committee: addressing a major cancer need. *Clin Cancer Res.* 2006;12:3606s–11s.
10. Lichtman SM. Call for changes in clinical trial reporting of older patients with cancer. *J Clin Oncol.* 2012;30:893–4.

Contents

1	Background and Epidemiology	1
	Nicole P.M. Ezendam, Lonneke V. van de Poll-Franse, and Jan-Willem Coebergh	
2	Pathology of Gynecologic Cancer	21
	Deborah DeLair	
3	Geriatric Issues in Ovarian Cancer	39
	Miriam Rodin	
4	Geriatric Assessment for the Oncologist	63
	Allison Magnuson and Supriya Mohile	
5	Pharmacology of Chemotherapy	83
	Christopher B. Steer and Gabriel W.H. Mak	
6	Preoperative Risk Assessment	99
	Siri Rostoft Kristjansson, Monica Ramello, and Riccardo A. Audisio	
7	Genetics and Gynecological Cancer	107
	Beth Overmoyer	
8	Radiotherapy	123
	Athina Markouizou	
9	Ovarian Cancer: Symptoms and Presentation	139
	Barbara Goff	
10	Ovarian Cancer: Surgical Considerations	151
	Kara C. Long and Dennis S. Chi	
11	Ovarian Cancer: Primary Chemotherapy	171
	William P. Tew	
12	Relapse: Surgical Considerations and Secondary Cytoreduction	183
	Sara M. Jordan and Robert E. Bristow	

13	Ovarian Cancer Relapse: Experimental Therapies	199
	Melina Shoni and Ursula A. Matulonis	
14	Management of Recurrent Ovarian Cancer in Older Women	229
	Nuria Romero and Franco Muggia	
15	Treatment of Endometrial Cancer in the Geriatric Patient.	243
	Kathleen N. Moore	
16	Treatment of Advanced Stage and Recurrent Endometrial Cancer in Elderly Women.	257
	Nita Karnik Lee and Gini F. Fleming	
17	Cervical Cancer in the Elderly: Staging and Surgical Management	277
	Amanda L. Jackson and Linda Van Le	
18	Cervical Cancer: Advanced Stage and Relapse Treatment – Standard and Experimental Therapy	295
	Kimberly L. Levinson and Peter G. Rose	
19	Vulval and Vaginal Cancer	307
	Niyati Nadkarni and Amina Ahmed	
20	Uterine Sarcomas in the Elderly.	319
	Robert G. Maki and Afsheen Iqbal	
21	Sexual Medicine in the Management of Older Gynecologic Cancer Patients	349
	Cara Stabile, Rebecca Steed, and Jeanne Carter	
22	End-of-Life Care for Elderly Patients with Gynecologic Cancer	367
	Lois M. Ramondetta, Maxine Grace de la Cruz, and EdenMae C. Rodriguez	
23	Palliative Surgery	391
	Lisa A. dos Santos and Andrew W. Menzin	
	Index	399

Contributors

Amina Ahmed, M.D., M.S. Department of OB/GYN, Division of Gynecologic Oncology, University of Iowa Hospitals and Clinics, Iowa City, IA, USA

Riccardo A. Audisio, M.D., FRCS Department of Surgery, St. Helens Teaching Hospital, St. Helens, Merseyside, UK

Robert E. Bristow, M.D., MBA Division of Gynecologic Oncology, Department of Obstetrics and Gynecology, University of California Irvine, Medical Center, Orange, CA, USA

Jeanne Carter, Ph.D. Gynecology Service, Department of Surgery, Memorial Sloan-Kettering Cancer Center, New York, NY, USA

Female Sexual Medicine and Women's Health, Department of Surgery/Psychiatry, Memorial Sloan-Kettering Cancer Center, New York, NY, USA

Dennis S. Chi, M.D. Gynecology Service, Department of Surgery, Memorial Sloan-Kettering Cancer Center, New York, NY, USA

Jan-Willem Coebergh, M.D. Department of Public Health, Erasmus MC, Rotterdam, The Netherlands

South Netherlands Cancer Registry, Comprehensive Cancer Centre South, Eindhoven, The Netherlands

Maxine Grace de la Cruz, M.D., M.S. Department of Palliative Care and Rehab Medicine, The University of Texas MD Anderson Cancer Center, Houston, TX, USA

Deborah DeLair, M.D. Department of Pathology, Memorial Sloan-Kettering Cancer Center, New York, NY, USA

Lisa A. dos Santos, M.D. Department of Obstetrics and Gynecology, Division of Gynecologic Oncology, North Shore-LIJ Health System, Manhasset, NY, USA

Hofstra North Shore-LIJ School of Medicine, Hempstead, NY, USA

Nicole P.M. Ezendam, Ph.D., MPH Department of Public Health, Erasmus MC, Rotterdam, The Netherlands

South Netherlands Cancer Registry, Comprehensive Cancer Centre South, Eindhoven, The Netherlands

Gini F. Fleming, M.D. Section of Gynecologic Oncology, Department of Obstetrics and Gynecology, University of Chicago, Chicago, IL, USA

Barbara Goff, M.D. Division of Gynecologic Oncology, Department of Obstetrics and Gynecology, University of Washington, Seattle, WA, USA

Afsheen Iqbal, M.D. Department of Medicine, The Mount Sinai Hospital, New York, NY, USA

Amanda L. Jackson, M.D. Division of Gynecologic Oncology, Department of Obstetrics and Gynecology, University of North Carolina Chapel Hill, Chapel Hill, NC, USA

Sara M. Jordan, M.D. Division of Gynecologic Oncology, Department of Obstetrics and Gynecology, University of California Irvine, Medical Center, Orange, CA, USA

Siri Rostoft Kristjansson, M.D., Ph.D. Department of Internal Medicine, Diakonhjemmet Hospital, Diakonveien, Oslo, Norway

Nita Karnik Lee, M.D., MPH Section of Gynecologic Oncology, Department of Obstetrics and Gynecology, University of Chicago, Chicago, IL, USA

Kimberly L. Levinson, M.D., MPH Cleveland Clinic, Fellow in Gynecologic Oncology, Women's Health Institute, Cleveland, OH, USA

Cleveland Clinic Foundation, Cleveland, OH, USA

Kara C. Long, M.D. Department of Surgery, Memorial Sloan-Kettering Cancer Center, New York, NY, USA

Allison Magnuson, DO Department of Medicine, University of Rochester Medical Center, University of Rochester, Rochester, NY, USA

Gabriel W.H. Mak, M.B.B.S. Border Medical Oncology, Wodonga, VIC, Australia

Robert G. Maki, M.D., Ph.D. Departments of Medicine, Pediatrics, and Orthopaedics, The Mount Sinai Hospital, New York, NY, USA

Athina Markouizou Department of Radiation Oncology, Metaxa Cancer Hospital, Piraeus, Greece

Ursula A. Matulonis, M.D. Department of Medical Oncology, Dana-Farber Cancer Institute, Boston, MA, USA

Andrew W. Menzin, M.D., FACOG, FACS Department of Obstetrics and Gynecology, Division of Gynecologic Oncology, North Shore-LIJ Health System, Manhasset, NY, USA

Hofstra North Shore-LIJ School of Medicine, Hempstead, NY, USA

Supriya Mohile, M.D. Department of Medicine, University of Rochester Medical Center, University of Rochester, Rochester, NY, USA

Kathleen N. Moore, M.D., M.S. Stephenson Cancer Center at the University of Oklahoma, Section of Gynecologic Oncology, Oklahoma City, OK, USA

Franco Muggia, M.D. Medical Oncology, NYU Cancer Institute, New York, NY, USA

Niyati Nadkarni, M.D. Department of OB/GYN, Division of Gynecologic Oncology, University of Iowa Hospitals and Clinics, Iowa City, IA, USA

Beth Overmoyer, M.D., FACP Women's Cancer Program, Dana Farber Cancer Institute, Harvard Medical School, Boston, MA, USA

Monica Ramello, M.D. UOC Oncologia Medica, Ospedale Ca' Foncello, Treviso, Italy

Lois M. Ramondetta, M.D. Department of Gynecologic Oncology and Reproductive Medicine, Unit 1362, The University of Texas MD Anderson Cancer Center, Houston, TX, USA

Miriam Rodin, M.D., Ph.D. Internal Medicine Division of Geriatrics and Gerontology, St. Louis University Medical School, St. Louis, MO, USA

EdenMae C. Rodriguez, PHARMD Department of Pharmacy Clinical Programs, The University of Texas MD Anderson Cancer Center, Houston, TX, USA

Nuria Romero, M.D. Medical Oncology, NYU Cancer Institute, New York, NY, USA

Peter G. Rose, M.D. Cleveland Clinic, Section Gynecologic Oncology, Women's Health Institute, Cleveland, OH, USA

Melina Shoni, M.D. Department of Medical Oncology, Dana-Farber Cancer Institute, Boston, MA, USA

Cara Stabile, B.S. Gynecology Service, Department of Surgery, Memorial Sloan-Kettering Cancer Center, New York, NY, USA

Rebecca Steed, MSN, WHNP-BC Gynecology Service, Department of Surgery, Memorial Sloan-Kettering Cancer Center, New York, NY, USA

Survivorship Department, Memorial Sloan-Kettering Cancer Center, New York, NY, USA

Christopher B. Steer, M.B.B.S., FRACP Border Medical Oncology,
Wodonga, VIC, Australia

William P. Tew, M.D. Gynecologic Medical Oncology Service,
Department of Medicine, Memorial Sloan-Kettering Cancer Center,
New York, NY, USA

Lonneke V. van de Poll-Franse, M.D. Department of Public Health,
Erasmus MC, Rotterdam, The Netherlands

South Netherlands Cancer Registry, Comprehensive Cancer Centre South,
Eindhoven, The Netherlands

Linda Van Le, M.D. Division of Gynecologic Oncology, Department of
Obstetrics and Gynecology, University of North Carolina Chapel Hill,
Chapel Hill, NC, USA