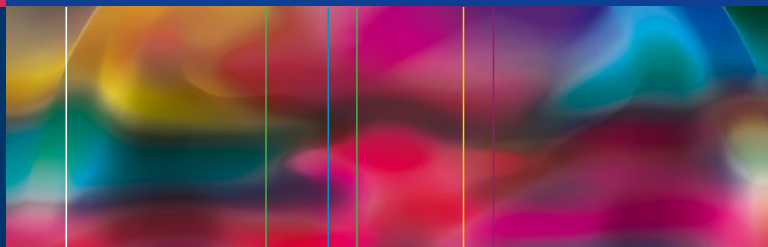


Marco Cascella
Arturo Cuomo
Daniela Viscardi



Features and Management of the Pelvic Cancer Pain



Springer

Features and Management of the Pelvic Cancer Pain

Marco Cascella • Arturo Cuomo
Daniela Viscardi

Features and Management of the Pelvic Cancer Pain

 Springer

Marco Cascella
Fondazione G. Pascale
National Cancer Institute
Naples, Italy

Arturo Cuomo
Fondazione G. Pascale
National Cancer Institute
Naples, Italy

Daniela Viscardi
Department Clinical Neurosc.,
Anesth Pharmacol
University “Federico II” Naples
Naples, Italy

ISBN 978-3-319-33586-5 ISBN 978-3-319-33587-2 (eBook)
DOI 10.1007/978-3-319-33587-2

Library of Congress Control Number: 2016944494

© Springer International Publishing Switzerland 2016

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.

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.

The publisher, the authors and the editors are safe to assume that the advice and information in this book are believed to be true and accurate at the date of publication. Neither the publisher nor the authors or the editors give a warranty, express or implied, with respect to the material contained herein or for any errors or omissions that may have been made.

Printed on acid-free paper

This Springer imprint is published by Springer Nature
The registered company is Springer International Publishing AG Switzerland

Foreword

For many years, the main objective of cancer treatment has been quantity of life. Only in the last decade, it has been fully understood that based on the patient's point of view, the quality of life has to be considered as a fundamental end point of therapy. There is no doubt that pain is the symptom that has the most important impact on quality of life.

Pelvic pain, due to the frequent neurologic component and the involvement of several organs and functions included in the pelvis, is the determinant of the worsening of quality of life in patients affected with urological and gynecological cancers. Also the understanding that cancer pain care requires a multidisciplinary approach is a recent concept. Oncologists, gynecologists, and urologists involved in this treatment are often unaware of all the possible treatments available in order to control pelvic cancer pain. This publication, I believe, is ideal for those who understand the value of the multidisciplinary approach of pain and can add to the knowledge a practical guidance on how to include in the clinical practice this approach.

Rome

S. Pignata
Department of Urology and Gynecology
National Cancer Institute
Naples, Italy

Preface

Hoc opus, hic labor est

Publio Virgilio Marone, Eneide, VI, 129

This book does not intend to be a manual on a subject that is moreover very complex and difficult to talk about. It has been designed in order to provide a practical guide, which could be easily used in the daily clinical practice on the management of pelvic pain with neoplastic genesis. On account of this, the book's chapters examine step by step all the more meaningful and critical aspects through a consequential progression. Additionally, at the end of each chapter, or paragraph, we have summarized the "practical suggestions," including recommended dosages and treatment strategies, with particular attention to side effects and possible complications. All topics refer to current literature, recent guidelines, and recommendations on the subject.

The discussion is divided into two parts: *Features and assessment* and *Treatments*. The features of pelvic pain in different cancer diseases and the pain assessment tools are two highly relevant basic themes on the matter. Several studies highlighted that two serious problems of healthcare professionals are the lack of knowledge about pain and the poor pain assessment.

A special issue concerns the pharmacological therapy. Analgesics, particularly opioids, are the mainstay of cancer pain treatment. Indeed, about 85 and 90 % of patients with advanced cancer can have their pain well controlled with the use of analgesic drugs and adjuvants, which usually can be

taken orally. Nevertheless, failure in controlling cancer pain with pharmacological management calls for employing multimodal management and invasive techniques, implementing the step 4 of the World Health Organization's three-step ladder. This issue also concerns pelvic cancer pain. By virtue of which, in this book, specific chapters concern the non-pharmacological approaches to cancer pelvic pain, including palliative radiotherapy, central neuraxial blocks, neurolytic sympathetic plexus blocks for pelvic visceral pain, and minimally invasive palliative procedures.

We also dedicated particular attention to the breakthrough cancer pain, "trying" to explain the clinical features and providing some suggestions for its management. Breakthrough cancer pain is a challenge in pain management. Our special interest is based on the evidence in the clinical experience of a high number of patients with cancer pelvic diseases who have to deal with this serious problem, especially those with pelvic bone lesions.

The emotional and behavioral changes are to be taken into account in both noncancer and cancer disease management. Pain significantly influences patients' quality of life and their psychological vulnerability, so specific chapters are spent on psychological and behavioral approaches to cancer pain management, and the role of palliative care team is also addressed. Many lines of evidence underline the effective role of psychological, behavioral, and rehabilitation approaches to cancer-related pain; moreover, when no cure of the cancer disease can be expected, pain management becomes an important component of the palliative care setting.

Because diagnostic and therapeutic approaches are common to more properly pelvic diseases, we thought it useful to include clinical features of tumors, such as anal cancer, which are classified among the diseases of the perineum.

This work is the result of our experience “in the pain”; thus, it is dedicated to all those who ask us for an answer, namely all patients who have been under our care for all these years: how much have we learned from them!

Naples, Italy

Marco Cascella
Arturo Cuomo
Daniela Viscardi

Acknowledgments

We are especially grateful to friends and colleagues whose inspiration was central to the writing of this book. In particular, we acknowledge: M.R. Muzio, Asl NA 3 SUD, Torre del Greco, Napoli; F. Fiore, Istituto Nazionale Tumori, Napoli; Ruben Iskandaryan, Russian National Research Medical University; C.A. Forte, Istituto Nazionale Tumori, Napoli; S. Longo, AOU Federico II, Napoli; D. Carbone, PO Umberto I, Nocera Inferiore, Salerno; C. Romano, Istituto Nazionale Tumori, Napoli; G. M. Romano, Istituto Nazionale Tumori, Napoli; R. Accardo, Istituto Nazionale Tumori, Napoli; V. Borzillo, Istituto Nazionale Tumori, Napoli; G. Esposito, Istituto Nazionale Tumori, Napoli.

A special thanks to Andrea Cascella, our personal proof-reader. Yet, Sabina, Laura, Vincenzo, Giorgi, and Matteo Cascella; Anna Maria Cerbone; Giovanna Russo, Simone Viscardi, and Vincenzo Moliterno; and Cristina Romano for investing their time to support our ambitious objective.

Contents

Abbreviations.....	xvii
Introduction.....	xxi
Part I Features and Assessment	
1 General Features of Pelvic Cancer Pain.....	3
1.1 Breakthrough Cancer Pain.....	7
References.....	11
2 Pelvic Pain in Different Cancer Diseases.....	15
References.....	23
3 Pain Syndromes Associated with Cancer Therapy.....	25
3.1 Chemotherapy-induced Peripheral Neuropathy.....	26
3.2 Postradiation Pain Syndromes	35
3.3 Chronic Postsurgical Pain and Postsurgical Pain Syndromes	40
References.....	49
4 Pain Assessment	63
References.....	68
Part II Treatments	
5 Pharmacological Approaches	73
5.1 Breakthrough Cancer Pain Management.....	82
5.2 Pharmacological Approaches for Bone Metastasis.....	84
	xiii

5.3	The Fourth Step of the WHO Ladder.....	87
	References.....	89
6	Palliative Radiotherapy	95
	References.....	100
7	Central Neuraxial Blocks	103
7.1	Epidural Blockade.....	103
7.2	Intrathecal Drug Delivery	108
	References.....	112
8	Neurolytic Sympathetic Plexus Blocks	115
8.1	Superior Hypogastric Plexus Block.....	116
8.2	Inferior Hypogastric Plexus Block	120
8.3	Neurolysis of the Ganglion Impar.....	121
8.4	Presacral Plexus Neurolytic Block	122
	References.....	124
9	Minimally Invasive Palliative Treatments	127
9.1	Radiofrequency Ablation	131
9.2	Laser-Induced Thermotherapy.....	132
9.3	Percutaneous Cryoablation	133
9.4	Irreversible Electroporation.....	134
9.5	Electrochemotherapy	134
9.6	Microwave Ablation	135
9.7	Cementoplasty and Other Interventions	135
	References.....	136
10	Psychological, Behavioral, and Rehabilitation Approaches to Cancer Pain Management	143
	References.....	148
11	Pain Management Team and Palliative Care Setting	151
	References.....	156
12	Conclusion	159
	References.....	160

Appendix A General Prerequisites and Contraindications Applicable to Interventions (Chaps. 7–9).....	161
Appendix B Algorithm for Pelvic Cancer Pain Management.....	163

Abbreviations

ASRA	American Society of Regional Anesthesia and Pain Medicine
BIPN	Bortezomib-induced peripheral neuropathy
BPI	Brief Pain Inventory
BPI-SF	Brief Pain Inventory-Short Form
BPs	Bisphosphonates
BTcP	Breakthrough cancer pain
CBR2	Cannabinoid Receptor-2
cGy	CentiGray
CIPN	Chemotherapy-induced peripheral neuropathy
CNS	Central nervous system
COMT	Catecholamine- <i>O</i> -methyltransferase
CPSP	Chronic postsurgical pain
CRT	Conformal radiotherapy
DNIC	Diffuse noxious inhibitory control
DRG	Dorsal root ganglia
DSF-KJ	The German pain questionnaire for children and adolescents
EAPC	European Association for Palliative Care
EBRT	External beam radiotherapy treatment
ECT	Electrochemotherapy
EORTC	European Organization for Research and Treatment of Cancer
ESMO	European Society of Clinical Oncology
G	Gauge
GABA	Gamma-Amino Butyric Acid
GSH	Glutathione
Gy	Gray

IASP	International Association for the Study of Pain
ICU	Intensive care unit
IDD	Intrathecal drug delivery
IHPB	Inferior Hypogastric Plexus Block
IMRT	Intensity-modulated radiotherapy
IOPS	The Italian Oncologic Pain Survey
IRE	Irreversible electroporation
L5	5th lumbar vertebra
LINAC	Linear accelerators
LITT	Laser-induced interstitial thermotherapy
MIPPs	Minimally invasive palliative procedures
NCI-CTC	National Cancer Institute-Common Toxicity Criteria.
NLP	Neoplastic lumbosacral plexopathy
NMDA	<i>N</i> -Methyl-D-Aspartate
NRS	Numerical rating scale
NSAIDs	Nonsteroidal anti-inflammatory drugs
PACC	Polyanalgesic Consensus Committee
PCA	Patient-controlled analgesia
PMI	The Pain Management Index
PNS	Peripheral Neuropathy Scale
PPS	Palliative Performance Scale
PRD	Pelvic radiation disease
PTM	Personal therapy manager
QLQ-CIPN20	CIPN-specific quality-of-life questionnaire
QoL	Quality of life
RANKL	Receptor activator of nuclear factor kappa-B ligand
RFA	Radiofrequency ablation
ROOs	Rapid onset opioids
RT	Radiation Therapy
S1	1st sacral
SBRT	Stereotactic radiotherapy
SHPB	Superior Hypogastric Plexus Block
SNRI	Serotonin norepinephrine reuptake inhibitors
SRS	Stereotactic radiosurgery