
Urodynamics, Neurourology and Pelvic Floor Dysfunctions

Series Editor

Marco Soligo
Obstetrics and Gynecology Department
Buzzi Hospital - University of Milan
Milan, Italy

The aim of the book series is to highlight new knowledge on physiopathology, diagnosis and treatment in the fields of pelvic floor dysfunctions, incontinence and neurourology for specialists (urologists, gynecologists, neurologists, pediatricians, physiatrists), nurses, physiotherapists and institutions such as universities and hospitals.

More information about this series at <http://www.springer.com/series/13503>

Salvatore Siracusano • Giuseppe Dodi
Michele Pennisi • Christian Gozzi
Antonio Luigi Pastore
Maria Angela Cerruto
Editors

Complications of Surgery for Male Urinary and Fecal Incontinence



 Springer

Editors

Salvatore Siracusano
Department of Urology
University of Verona, Borgo Trento Hospital
Verona
Italy

Giuseppe Dodi
Department of Surgery
University of Padova
Padova
Italy

Michele Pennisi
Urology Department
Ospedale Cannizzaro Urology Department
Catania
Italy

Christian Gozzi
Urology Department
San Raffaele Hospital
Milano
Italy

Antonio Luigi Pastore
Department of Medico-Surgical Science
and Biotechnologies
Sapienza University of Rome
Latina
Italy

Maria Angela Cerruto
Department of Urology
University of Verona, Borgo Trento Hospital
Verona
Italy

ISSN 2510-4047

ISSN 2510-4055 (electronic)

Urodynamics, Neurourology and Pelvic Floor Dysfunctions

ISBN 978-3-319-98263-2

ISBN 978-3-319-98264-9 (eBook)

<https://doi.org/10.1007/978-3-319-98264-9>

© Springer Nature Switzerland AG 2020

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, expressed or implied, with respect to the material contained herein or for any errors or omissions that may have been made. The publisher remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

This Springer imprint is published by the registered company Springer Nature Switzerland AG
The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

Series Editor's Preface

Another valuable episode adds to the series of Springer volumes realized under the auspices of the Italian Society of Urodynamics. The aim of the book series is to highlight new knowledge on physiopathology, diagnosis, and treatment in the fields of pelvic floor dysfunctions, incontinence, and neuro-urology for specialists (urologists, gynecologists, colorectal surgeons, neurologists, pediatricians, and physiatrists), nurses, physiotherapists, midwives, and institutions such as universities and hospitals. Our volumes highly cover this variety of interests with an interdisciplinary approach. The present volume adds to our series a precious perspective on complications of surgery with the invaluable merit of involving urological as well as proctological points of view.

Marco Soligo
Department of Women, Mothers and Neonates
Buzzi Children's Hospital
ASST Fatebenefratelli Sacco
University of Milan
Milan, Italy

President of the Italian Society of Urodynamics (SIUD)
Milan, Italy

Preface

The decision to plan this book was born from the need to clarify the possible complications of surgery for urinary and fecal incontinence in the male. In fact, to date the attention of most of the texts on this topic is generally addressed to the indications and surgical technique but without reserving particular attention to the complications that this surgery can cause.

In this context as urologists and proctologists we decided to set the diagnosis and treatment of the complications of this surgery by means of an interdisciplinary approach within an integrated vision of the male pelvic floor from the urological and proctological point of view.

Finally, a thank you to all the authors and to the Italian Society of Urodynamics that gave us the opportunity to realize this text.

Verona, Italy
Padova, Italy
Catania, Italy
Milano, Italy
Rome, Italy
Verona, Italy

Salvatore Siracusano
Giuseppe Dodi
Michele Pennisi
Christian Gozzi
Antonio Luigi Pastore
Maria Angela Cerruto

Introduction

Urinary and fecal incontinence in the male still represent two pathological conditions that are not fully known in their entirety from the pathophysiological and from the therapeutic point of view. In this context, the evaluation of the complications of this type of surgery is even more problematic, especially in consideration of the fact that frequently they have been evaluated separately for what concerns the anterior or posterior compartment of the pelvic floor. In this text, therefore, we deliberately dealt with each aspect in a transversal way with an integrated urological and proctological approach that allowed the creation of an interdisciplinary point of view for each problem. In my opinion, this represents the winning aspect for the solution of perineal dysfunctions and even more for the deepening of the complications that derive from functional surgery for these patients.

In the future, this type of interdisciplinary approach should represent the standard but it is also true that in order to achieve this objective, the help of all the specialists involved in this area is needed in order to obtain the institutionalization of the professional figure of the perineologist.

Finally, a thank you goes to all members of Pelvic Male Commission and in particular to Prof. Giuseppe Dodi who had the idea of making interdisciplinary comments and to Dr. Alessandro Giammò who was a precious interlocutor with the Italian Society of Urodynamics for the realization of this text.

Salvatore Siracusano
Department of Urology, University of Verona,
Borgo Trento Hospital,
Verona, Italy

Thanks to SIUD for including Colorectal Surgery and Proctology in the Commission that produced this book, and to Professor Siracusano as well for the masterful management of the collaboration with the authors of the chapters on anal incontinence. For them the matter is difficult and controversial, being very dependent on the assessment of the quality of life of the patients. I am confident that those who deal with the pelvic floor in different specialties will appreciate this publication where I had the honor of collaborating thanks to my experience as editor of the journal *Pelviperineology* where the interdisciplinary assessments and the integral vision of the three compartments are considered the base for training a pelvic floor surgeon.

Giuseppe Dodi

Contents

Part I General Aspects

- 1 Epidemiology of Urinary and Fecal Incontinence 3**
Antonio Luigi Pastore, Andrea Ramin, and Angelica Ganss
- 2 Surgical Anatomy, Physiology and Pathophysiology 11**
Maria Angela Cerruto and Benito Ferraro
- 3 Urinary and Fecal Incontinence: Preoperative Considerations 27**
Michele Pennisi and Alvisè Frasson

Part II Surgical Procedures and Intraoperative Complications

- 4 Artificial Urinary (AUS) and Anal (AAS) Sphincter 43**
Salvatore Siracusano, Luigi Fondacaro, and Enrico Melega
- 5 Slings for Urinary and Fecal Incontinence 55**
Christian Gozzi, Salvatore Siracusano, and Filippo La Torre
- 6 ProACT for Urinary Incontinence 77**
Alessandro Giammò and Enrico Ammirati
- 7 Bulking Agents for Urinary and Fecal Incontinence 83**
Michele Pennisi, Antonio Luigi Pastore, and Filippo La Torre
- 8 Sacral Neuromodulation for Urinary and Fecal Incontinence 89**
Maria Angela Cerruto and Alessandra Masin
- 9 Anal Sphincter Reconstruction and Graciloplasty 105**
Enrico Melega
- 10 Radiofrequency (SECCA) for Fecal Incontinence 109**
Marco Frascio

Part III Short, Intermediate and Long-Term Postoperative Complications

- 11 Artificial Urinary (AUS) and Anal (AAS) Sphincter (AUS) 115**
Salvatore Siracusano, Luigi Fondacaro, and Enrico Melega

12	Complications of Anal Sphincter Reconstruction and Graciloplasty	123
	Enrico Melega	
13	Slings for Urinary and Fecal Incontinence	127
	Christian Gozzi, Salvatore Siracusano, and Filippo La Torre	
14	ProACT for Urinary Incontinence (Early, Intermediate, and Long-Term Complications)	137
	Alessandro Giammò	
15	Bulking Agents for Urinary and Fecal Incontinence	143
	Michele Pennisi, Antonio Luigi Pastore, and Filippo La Torre	
16	Sacral Neuromodulation for Urinary and Fecal Incontinence	151
	Maria Angela Cerruto and Alessandra Masin	
17	A Complication in SECCA Procedure: Case of Anal Abscess	163
	Marco Frascio	