

Robotic Urologic Surgery

Vipul R. Patel (Ed.)

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 Springer

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*This book is dedicated to my wife Sejal
and my two children Ela and Evan*

Foreword

Urologic surgery has always been associated with unusual diagnostic and therapeutic approaches to pathologic disorders. Endoscopy, contrast radiography, and extracorporeal shock wave lithotripsy are a few of the innovations promulgated by urologists to address physiological dysfunctions of the gastrointestinal urinary tract. Robotic-assisted laparoscopic surgery is a natural extension of the pioneering efforts of endourologists to perform closed, controlled manipulations of the urinary system. It is appealing technology that challenges surgical scientists to accurately define and extend the indications for robotics in the surgical patient. Dr. Vipul Patel and his contributors have elegantly provided for all of us the foundation to acquire and amplify the skills of robotic surgery and improve the precision of our operative endeavors.

Robert R. Bahnson, MD
E. Christopher Ellison, MD

Preface

Surgery has traditionally been a specialty within the medical profession that has revolved around invasive procedures to treat various maladies. Initially, trauma induced by a therapeutic procedure was necessary and reasonable to provide benefit to the patient. But now, the innovation of digital imaging technology, combined with optical engineering and improved video displays, allows surgeons to operate inside body cavities for therapeutic intervention without the larger incisions.

Minimally invasive surgery has changed the route of access and has significantly and irrevocably changed the surgical treatment of most disease processes. Patients still undergo interventions to treat disease, but minimally invasive surgery makes possible a reduction or complete elimination of the “collateral damage” required to gain access to the organ requiring surgery. While the benefits of this approach are numerous for the patient, early technology limited the application of minimally invasive surgery to only some procedures. Specifically, surgeons using standard minimally invasive techniques lost the value of natural three-dimensional image, depth perception, and articulated movements. Magnification of small structures was often difficult and instruments were rigid and without joints. Robotic surgery has provided the technology to address these limitations and allow the application of minimally invasive surgery to a broader spectrum of patients and their diseases.

The robotic revolution in surgery began at the dawn of the new millennium and has seen its most robust growth in the area of urologic surgery. Urologists and patients alike have embraced this technological leap to create a whole new era in urology. This book represents the first ever robotic surgery text dedicated solely to the field of urologic surgery and therefore a milestone all to itself. The work is a compilation of the knowledge and experience of the worlds foremost robotic urologic surgeons. The field of surgery has forever been changed for the betterment of surgical technique and patient care.

Vipul R. Patel

Contents

Foreword by Robert R. Bahnson and E. Christopher Ellison	vii
Preface	ix
Contributors	xv
1 Robotic Urologic Surgery: An Introduction and Vision for the Future	1
<i>Nicholas J. Hegarty and Inderbir S. Gill</i>	
2 Robotic Surgical Systems	5
<i>Vimal K. Narula and W. Scott Melvin</i>	
3 Multispecialty Applications of Robotic Technology	15
<i>Geoffrey N. Box and Michael Gong</i>	
4 An Overview of Adult Robotic Urologic Surgery	23
<i>Fatih Atug and Raju Thomas</i>	
5 Essential Elements of Building a Robotics Program	28
<i>Garrett S. Matsunaga, Anthony J. Costello, Douglas W. Skarecky, and Thomas E. Ahlering</i>	
6 Principles and Lessons in a Transition from Open to Robotic-Assisted Laparoscopic Prostatectomy	34
<i>Joseph A. Smith, Jr.</i>	
7 Training: Preparing the Robotics Team for Their First Case	41
<i>Richard C. Sarle, Khurshid A. Guru, and James O. Peabody</i>	
8 Patient Selection and Perioperative Management	47
<i>Gregg E. Zimmerman, Khurshid A. Guru, Hyung L. Kim, and James L. Mohler</i>	
9 Anesthetic Considerations and Management	54
<i>Christopher L. Yerington and Barry Nuechterlein</i>	

10	Patient Positioning for Robotic Urologic Procedures	61
	<i>Robert I. Carey and Raymond J. Leveillee</i>	
11	Transperitoneal Trocar Placement	67
	<i>Justin M. Albani and David I. Lee</i>	
12	Extraperitoneal Access	76
	<i>András Hoznek, Michael Esposito, Laurent Salomon, and Clement-Claude Abbou</i>	
13	Robotic Radical Prostatectomy: A Step-by-Step Approach	81
	<i>Alok Shrivastava and Mani Menon</i>	
14	Clinical Pearls: The Approach to the Management of Difficult Anatomy and Common Operative and Postoperative Problems	91
	<i>Vipul R. Patel</i>	
15A	The French Experience: A Comparison of the Perioperative Outcomes of Laparoscopic and Robot-Assisted Radical Prostatectomy at Montsouris	101
	<i>Justin D. Harmon, Francois Rozet, Xavier Cathelineau, Eric Barret, and Guy Vallancien</i>	
15B	The French Experience: The St. Augustin Transition from the Laparoscopic to the Robotic Approach	106
	<i>Thierry Piechaud, A. Pansadoro, and Charles-Henry Rochat</i>	
16	The Oncologic Outcomes of Robotic-Assisted Laparoscopic Prostatectomy	110
	<i>Kristy M. Borawski, James O. L'Esperance, and David M. Albala</i>	
17	Anatomic Basis of Nerve-Sparing Robotic Prostatectomy	116
	<i>Sandhya Rao, Atsushi Takenaka, and Ashutosh Tewari</i>	
18	Alternative Approaches to Nerve Sparing: Techniques and Outcomes	124
	<i>Can Öbek and Ali Riza Kural</i>	
19	Management of Postprostatectomy Erectile Dysfunction	131
	<i>Craig D. Zippe and Shikha Sharma</i>	
20	Robotic Pyeloplasty	152
	<i>Michael Louie, Robert I. Carey, Raymond J. Leveillee, and Vipul R. Patel</i>	
21	Robot-Assisted Radical Cystectomy and Urinary Diversion	161
	<i>Ashok K. Hemal and Mani Menon</i>	
22	Complications of Robotic Surgery and How to Prevent Them	169
	<i>Scott Van Appledorn and Anthony J. Costello</i>	

23	Applications of Robotics in Pediatric Urologic Surgery	179
	<i>Craig A. Peters</i>	
24	Robotics and Infertility	188
	<i>Sejal Dharia Patel</i>	
25	Robotic Urogynecologic Surgery	194
	<i>Daniel S. Elliott, Amy Krambeck, and George K. Chow</i>	
26	The Future of Telerobotic Surgery	199
	<i>Garth H. Ballantyne</i>	
	Appendix A Prostate Images	208
	Appendix B Pyeloplasty Images	214
	Index	217

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