

Contents

SECTION

1 Anesthesia and Setup



1. Anesthesia for Robotic Urological Surgery 3

James G Widyn, Philip Lebowitz

Introduction 3

Preoperative Management 3

Intraoperative Management 4

Postoperative Care 5

2. Laparoscopic and Robotic Instrumentation 7

Michael S Lasser, Reza Ghavamian

Laparoscopic Instrumentation 7

Robotic Instrumentation 11

SECTION

2 Upper Tract Surgery



3. Laparoscopic Transperitoneal Radical Nephrectomy 17

Simon Y Kimm, Jonathan A Coleman

Introduction 17

Indications 17

Instrumentation 17

Patient Preparation 17

Patient Positioning 18

Access 18

Right Radical Nephrectomy 19

Left Radical Nephrectomy 21

4. Extraperitoneal Laparoscopic Radical Nephrectomy and Partial Nephrectomy 25

Jacob H Cohen, Michael Grasso III

Introduction 25

Laparoscopic Instrumentation and Essential Accessories 25

Extraperitoneal Laparoscopic Radical Nephrectomy 25

Extraperitoneal Laparoscopic Partial Nephrectomy 28

5. Hand-Assisted Laparoscopic Radical Nephrectomy 32

Shadi Al Ekish, Gyan Pareek

Introduction 32

Indications 32

Contraindications 32

Patient Evaluation and Preparation	32
Hand-Assisted Laparoscopic Port Placement	32
Patient Positioning	33
Trocars and Hand-Port Placement	33
Left Hand-Assisted Laparoscopic Radical Nephrectomy	33
Right Hand-Assisted Laparoscopic Radical Nephrectomy	34
Steps of the Procedure	34
6. Robotic Radical Nephrectomy and Robotic Nephrectomy with Caval Thrombectomy.....	37
<i>Praneeth Vemulapalli, Ronney Abaza</i>	
Introduction	37
Positioning	37
Instruments and Port Placement	37
7. Laparoscopic Partial Nephrectomy.....	47
<i>Reza Ghavamian</i>	
Introduction	47
Instrumentation	47
Preparation, Positioning and Port Placement	47
Technique of Right-Sided Laparoscopic Partial Nephrectomy	47
Technique of Left-Sided Laparoscopic Partial Nephrectomy	52
Laparoscopic Partial Nephrectomy for Large Tumors	54
Sliding Clip Renorrhaphy	56
8. Robotic Partial Nephrectomy.....	60
<i>Aron Bruhn, Michael Stifelman</i>	
Introduction	60
Procedural Steps	60
9. Laparoendoscopic Single-Site (LESS) Live Donor Nephrectomy and Renal Surgery.....	70
<i>Michael B Marean, James S Rosoff, Joseph J Del Pizzo</i>	
Introduction	70
Procedure	70
Instruments	71
10. Robotic Nephroureterectomy with Resection of Distal Bladder Cuff.....	75
<i>Jan Colli, Benjamin R Lee</i>	
Introduction and Indications	75
Technique	75
11. Laparoscopic and Robot-Assisted Adrenalectomy	80
<i>Jennifer K Yates, Samay Jain, Ravi Munver</i>	
Introduction	80
Left Transperitoneal Laparoscopic Adrenalectomy	80
Right Transperitoneal Laparoscopic Adrenalectomy	81
Retroperitoneal Laparoscopic Adrenalectomy	84
Robot-Assisted Laparoscopic Adrenalectomy	85
Laparoscopic and Robot-Assisted Laparoscopic Partial Adrenalectomy	85

SECTION**3 Lower Tract Surgery**

12. Transperitoneal Robotic Radical Prostatectomy.....	91
<i>Abhishek Srivastava, Nishant Mishra, Prasanna Sooriakumaran, Ashutosh K Tewari</i>	
Introduction	91
Surgical Instruments	91
Tips and Tricks	92
Technique of Trizonal Athermal Robotic Prostatectomy	92
13. Extraperitoneal Robot-Assisted Radical Prostatectomy	101
<i>Ahmed Ghazi, Jean Joseph</i>	
Introduction	101
Advantages of the Extraperitoneal Approach	101
Contraindications	101
Instrumentation	101
Procedural Steps	101
14. Laparoscopic Radical Prostatectomy	117
<i>Boris Gershman, Douglas M Dahl</i>	
Patient Selection and Preoperative Preparation	117
Operating Room Setup and Patient Positioning	117
Obtaining Access—Extraperitoneal Approach	117
Obtaining Access—Transperitoneal Approach	118
Pelvic Lymph Node Dissection	118
Postoperative Care	121
Complications	121
Surgical Adjuncts	121
15. Laparoscopic Radical Cystectomy and Urinary Diversion	125
<i>Iqbal Singh, Reza Ghavamian, Ashok K Hemal</i>	
Introduction	125
Indications	125
Preparation	125
Laparoscopic Technique (Surgical Methods)	125
Urinary Diversion	130
16. Robot-Assisted Radical Cystectomy and Intracorporeal Ileal Conduit	134
<i>Faris S Azzouni, Khurshid A Guru</i>	
Bowel Preparation	134
Preoperative Preparation	134
Technique of Robot-Assisted Radical Cystectomy in the Male Patient (Technique of Spaces)	134
Technique of Robot-Assisted Radical Cystectomy (Anterior Pelvic Exenteration) in the Female Patient	137
Robot-Assisted Intracorporeal Ileal Conduit (Marionette Technique)	140
17. Robotic Extended Pelvic Lymph Node Dissection for Bladder	146
<i>Reza Ghavamian</i>	
Introduction	146
Technique of Robotic Extended Pelvic Lymphadenectomy	146

18. Robotic and Laparoscopic Partial Cystectomy	154
<i>Rishi Nayyar, Ashok K Hemal</i>	
Introduction	154
Indications	155
Steps of Surgery	155
Total Transvesical Technique (Robotic Approach)	159
Existing Literature on Outcomes	160
19. Robotic Distal Ureterectomy with Ureteroneocystotomy.....	161
<i>Kush Patel, Raju Thomas</i>	
Introduction	161
Distal Ureterectomy	161
Ureteroneocystostomy	163
20. Laparoscopic Retroperitoneal Lymph Node Dissection.....	165
<i>Brian D Duty, Ornob P Roy, Louis R Kavoussi</i>	
Introduction	165
Indications	165
Patient Preparation	165
Operating Room Setup	165
Patient Positioning	165
Laparoscopic Access	166
Postoperative Care	169
Complications	169
21. Robotic-Assisted Laparoscopic Retroperitoneal Lymph Node Dissection for Testicular Cancer.....	171
<i>Stephen B Williams, David Y Josephson</i>	
Introduction	171
Procedure	171
22. Complications of Laparoscopic Urologic Surgery.....	177
<i>Steve K Williams, Reza Ghavamian</i>	
Introduction	177
Classification of Complications	177
23. Laparoscopic Nephroureterectomy (With Robotic Distal Ureterectomy and Bladder Cuff Excision)	187
<i>James S Rosoff, Michael B Marean, Joseph J Del Pizzo</i>	
Introduction	187
Laparoscopic Nephroureterectomy	187
Distal Ureterectomy and Bladder Cuff	191
24. Laparoscopic Renal Thermal Ablation	192
<i>Phillip Mucksavage, Achim Lusch, Joseph Graversen, Chris R Kelly, Jaime Landman</i>	
Introduction	192
Cryotherapy	192
Radiofrequency Ablation	192
Indications for Thermal Ablation	193
Instrumentation	193
Atlas of Procedural Steps	193
Index	201