Contents

Contributors, vii
Foreword by Mark D. Markel, ix
Foreword by Gerald M. Fried, xi
Preface, xii
Acknowledgments, xiii
About the Companion Website, xiv
History of Small Animal Laparoscopy and Thoracoscopy, xiv

Section I: Laparoscopic Skills
1 Surgeons’ Skills Training, 3
   Boel A. Fransson, Heather A. Towle Millard, and Claude A. Ragle
2 Minimally Invasive Suturing Techniques, 12
   Boel A. Fransson and John C. Huhn

Section II: Equipment
3 Imaging Equipment and Operating Room Setup, 31
   Fausto Brandão and Christopher Chamness
4 Surgical Instrumentation
   4.1 Surgical Instrumentation, 41
      Elizabeth A. Swanson and Heather A. Towle Millard
   4.2 Trocars and Cannulas, 48
      Nicole J. Buote
   4.3 Miscellaneous Surgical Instrumentation, 53
      Jessica K. Baron and Jeffrey J. Runge
5 Energy Devices and Stapling Equipment, 58
   Sarah Marvel and Eric Monnet
6 Single-Incision Laparoscopic Surgery Devices, 65
   Jeffrey J. Runge

Section III: Fundamental Techniques in Laparoscopy
7 Anesthesia Management of Dogs and Cats for Laparoscopy, 75
   Khursheed Mama and Marlis L. de Rezende
8 Laparoscopic Access Techniques, 81
   Gilles Dupre
9 The Laparoscopic Working Space: Pneumoperitoneum Techniques and Patient Positioning, 88
   Boel A. Fransson
10 Laparoscopic Contraindications, Complications, and Conversion, 93
   Nicole J. Buote and Janet Kovak McClaran

Section IV: Laparoscopic Surgical Procedures
11 Diagnostic Laparoscopy of the Gastrointestinal Tract, 105
   J. Brad Case
12 Laparoscopic-Assisted Gastrotomy, Enterotomy, Enterectomy, and Anastomosis, 113
   J. Brad Case and Gary W. Ellison
13 Laparoscopic-Assisted Feeding Tube Placement, 120
   J. Brad Case
14 Laparoscopic and Laparoscopic-Assisted Gastropexy Techniques, 124
   Kayla M. Corriveau, Jeffrey J. Runge, and Clarence A. Rawlings
15 Laparoscopic Splenectomy, 134
   Stephanie L. Shaver and Philipp D. Mayhew
16 Liver Biopsy and Cholecystocentesis, 141
   Ameet Singh
17 Laparoscopic Cholecystectomy, 149
   Philipp D. Mayhew and Ameet Singh
18 Laparoscopic Adrenalectomy, 156
   Philipp D. Mayhew and Jolle Kirpensteijn
19 Laparoscopic Surgery of the Pancreas, 167
   Floryne O. Buishand, Sebastiaan A. van Nimwegen, and Jolle Kirpensteijn
20 Laparoscopic Renal Biopsy, 179
   Keith Richter and Sheri Ross
21 Laparoscopic Ureteronephrectomy, 185
   Philipp D. Mayhew
22 Laparoscopic-Assisted Nephrolith Removal, 192
   Eric Monnet
23 Laparoscopic-Assisted Cystoscopy for Urolith Removal and
   Mass Resection, 195
   Chloe Wormser, Jeffrey J. Runge, and Clarence A. Rawlings
24 Laparoscopic Ovariectomy and Ovariohysterectomy, 207
   Nicole J. Buote
25 Cryptorchidectomy and Vasectomy, 217
   Katie C. Kennedy and Boel A. Fransson
26 The Role of Laparoscopy in Cancer Staging, 224
   Michele A. Steffey
27 Diaphragmatic and Inguinal Herniorrhaphy, 236
   Eric Monnet and Boel A. Fransson
28 Advanced Surgical Platforms: NOTES and Robotic Surgery, 243
   Lynetta Freeman and Heather A. Towle Millard

Section V: Fundamental Techniques in Thoracoscopy
29 Anesthesia for Thoracoscopy, 255
   Peter J. Pascoe and Philipp D. Mayhew
30 Patient Positioning, Port Placement, and Access Techniques
   for Thorascopic Surgery, 271
   Philipp D. Mayhew and William T.N. Culp
31 Thorascoposcopic Contraindications, Complications, and
   Conversion, 277
   J. Brad Case and Jeffrey J. Runge

Section VI: Thorascoscopic Surgical Procedures
32 Thorascoposcopic Lung Biopsy and Lung Lobectomy, 287
   Eric Monnet
33 Thorascoposcopic Pericardial Window and Subtotal
   Pericardectomy in Dogs and Cats, 294
   Gilles Dupre
34 Thorascoposcopic Placement of Epicardial Pacemakers, 302
   Stephane Libermann
35 Right Auricular Mass Resection, 307
   Stephane Libermann and Eric Monnet
36 Minimally Invasive Treatment of Chylothorax, 311
   MaryAnn Radlinsky
37 Thorascoposcopic Treatment of Vascular Ring Anomalies, 319
   Eric Monnet
38 Thorascoposcopic Mediastinal Mass Resection, 325
   William T.N. Culp and Geraldine B. Hunt
39 Minimally Invasive Cancer Staging in the Thorax, 332
   Michele A. Steffey

Index, 345