CONTENTS

1. Milestones in Hernia Surgery 1

- *History of the Procedure 3*

2. Surgical Anatomy of Hernia Sites 5

- *Surgical Anatomy of Hernia Sites 5*
- *External Anatomy of Abdominal Wall—The Surface Markings 6*
- *The Fascia 7*
- *Rectus Abdominis and Rectus Sheath 8*
- *Importance of Langer's Lines in Hernia Surgery 16*
- *Vascular Supply of Abdomen 17*
- *Posterior Abdominal Wall 21*
- *Blood Supply of Posterior Abdominal Wall 22*
- *Deep Inguinal Ring 23*
- *Diaphragm 29*
- *Esophageal Hiatus 30*

3. Incidence, Prevalence of Hernia 32

- *Incidence, Prevalence of Hernias (Abdominal) 32*
- *Epidemiology 34*
- *Epigastric Hernia 34*
- *Hiatal Hernia 34*
- *Epidemiology of Inguinal Hernia Survey Results 35*

4. Etiology of Herniation 37

- *Etiology 37*
- *Pathophysiology 39*

5. Prosthesis Used in Hernioplasty 46

- *Use of Prosthetics in Hernia Repair 46*
- *Permacol 49*
- *AlloDerm Mesh 49*
- *Flat Nonabsorbable/Partially Absorbable Mesh 50*

- *Ultrapro (Poliglecaprone-25/Polypropylene) Synthetic Partially Absorbable Mesh 53*
- *Devices for Inguinal Hernioplasty 54*
- *Ultrapro* Plug 56*
- *Proceed* Surgical Mesh 57*
- *Proceed* Ventral Patch 58*
- *Preshaped Mesh Device for Inguinal Hernia 60*
- *Gore Dualmesh® Biomaterial 62*
- *Complications Related to the Use of Prosthetics 63*

6. Classification of Hernia 64

- *Classification of Abdominal Hernia 64*
- *Endoscopic/Laparoscopic Classification of Hernia 65*

7. Diagnosis of Hernia 68

- *Presentation of Hernia 68*
- *Other Hernias 69*
- *Diagnosis 69*
- *Presentation 70*
- *Differential Diagnosis 70*
- *Symptoms 70*
- *Diagnosis 70*
- *Monolocular Properitoneal Hernia 71*
- *Dynamic Ultrasound Versus a CT or MRI Scan for Diagnosing Hernias 77*
- *Computed Tomography 78*
- *Magnetic Resonance Imaging 80*

8. Principles of Hernia Repair 81

- *Current Guidelines in Hernia (Abdominal) Surgery 81*
- *Wound Healing in the Presence of Prosthetic Mesh 82*
- *Suturing Materials 82*
- *Placement of Prosthetic Mesh 82*

9. Anesthesia in Hernia Surgery 83

- *Anesthesia for Hernia Repairs 83*
- *Local Anesthesia for Hernias (Inguinal) 83*
- *Complications 86*
- *Toxicity of Local Anesthetic Agents 86*

10. Open Anterior Repair of Inguinal Hernia in Adult 88

- *Techniques of Open Anterior Inguinal Hernia Repair 88*
- *Details of Procedure 88*
- *Inguinal Dissection 90*
- *Reconstruction 91*
- *The Repair Technique (Other Way Around) 94*
- *Advantages and Disadvantages 97*
- *Technique 98*

11. Laparoscopic Inguinal Hernia Repairs 102

- *Definitions 103*
- *Laparoscopic Inguinal Anatomy 104*
- *Indications 105*
- *Contraindications 107*
- *Anesthesia 107*
- *Positioning 108*
- *Technique TEP—Total Extraperitoneal Repair 108*
- *Important Tips 111*
- *Complications 111*
- *Transabdominal Preperitoneal Hernia Repair 112*
- *Final Word 119*

12. Female Inguinal Hernia 120

- *Anatomy and Surgery Techniques 120*
- *Contents 120*
- *Female Inguinal Hernia 121*
- *Operative Technique 122*

13. Pediatric Inguinal Hernia 123

- *Inguinal Hernia in Children 123*
- *Mortality/Morbidity 125*
- *Differential Diagnoses of Inguinal Hernia in Children 126*
- *Hydrocele and Hernia in Children Varicocele in Adolescents 126*
- *Repair of the Pediatric Inguinal Hernia 128*

14. Femoral Hernia 133

- *Surgery 133*

- *Anatomy* 133
- *Demographics* 136

15. Umbilical Hernia 144

- *Umbilical Hernias* 144
- *Diagnosis* 144
- *Treatment* 145
- *Epidemiology and Pathology* 147
- *Mayo's Procedure for Umbilical Hernia* 147
- *Laparoscopic Repair* 149

16. Epigastric Hernia 150

- *Epigastric Hernia* 150
- *Investigations* 151

17. Incisional/Ventral Hernias 163

- *Incisional/Ventral Hernia Surgery* 163
- *Demographics* 163
- *Diagnosis* 164
- *Treatment* 167
- *Open Prosthetic Incisional Hernia Repair* 167
- *Postoperative Complications* 175
- *Wound Complications/Fluid Collections* 175
- *Recurrence* 176

18. Lumbar Hernia (Types of Lumbar Hernia Surgery) 177

- *Hernia of the Superior Lumbar Triangle* 177
- *Lumbar Hernia: Diagnosis by CT* 180
- *Treatment* 183

19. Spigelian Hernia 185

- *Definition* 185
- *Diagnosis* 186
- *Laparoscopic Surgery for Spigelian Hernia* 188

20. Pelvic Hernias 190

- *Obturator Hernia* 190
- *Howship-Romberg Sign* 190
- *Demographics and Clinical Presentation* 193
- *Radiographic Features* 194
- *Management* 194
- *Sciatic Hernia* 196
- *Treatment* 196
- *Perineal Hernias* 198
- *Clinical Investigations* 203
- *Treatment* 203

Index 205