## Contents

### I  Risk for the Spermatic Cord

1. Are There Adverse Effects of Herniorrhaphy Techniques on Testicular Perfusion? .......... 3  
2. The Effects of Mesh Bioprosthesis on the Spermatic Cord Structures in a Rat Model .................. 13  
3. Damage to the Spermatic Cord by the Lichtenstein Procedure in a Pig Model–Preliminary Results ........ 21  
4. Influence of Prosthetic Implants on Male Fertility in Rats and Rats .......................... 29  
5. The Effects of a Mesh Bioprosthesis on the Spermatic Cord Structures .................... 39  
6. Influence of Prosthetic Implants on Male Fertility in Rats .................................. 43
7. What Can We Do To Decrease the Risk of Vas Deferens Injury due to Inguinal Hernioplasty? ......................... 49  
8. The Long-Term Effect on Testicular Function of a Mesh Bioprosthesis Used for Inguinal Hernia Repair .......................... 57  
10. Damage to the Spermatic Cord from Groin Herniorrhaphy: A Review ................... 71

### II  Risk for Infection

11. Mesh Infection Following Hernia Repair: A Frequent Problem? .......................... 79  
12. Patient Factors as a Major Determinant of Wound Outcome and Infection After Surgery .......................... 87  
13. Mesh-Related Infections After Hernia Repair .................................. 97  
14. Human Acellular Dermal Matrix for Ventral Hernia Repair in the Compromised Surgical Field ......................... 103

15. Fate of the Inguinal Hernia Following Removal of Infected Prosthetic Mesh ......... 113  
16. Mesh Infection–Therapeutic Options .................................. 119
17. Does Antibiotic Prophylaxis Prevent the Occurrence of Wound Infection After Groin Hernia Surgery? ......................... 125  
18. Infection Control in a Hernia Clinic: 24-Year Results of Aseptic and Antiseptic Measure Implementation in 4,620 «Clean Cases» Based on Up-To-Date Microbiological Research .......................... 135  
19. Components Separation Technique: Pros and Cons .......................... 143

### III  Risk for Pain

20. Self-Assessment of Discomfort and Pain after Inguinal Hernia Repair: A Reflection of Both Individual Pain Propensity and Surgical Strategy ......................... 155  
21. Chronic Pain After Inguinal Hernia Repair .......................... 163  
22. What Do We Know About the Pathophysiology and Pathology of Neuropathic Pain? .......................... 169  
23. Surgical Trauma of Nerves–Causes of Neuropathic Pain, Classification, and Options in Surgical Therapy .......................... 177  
24. Risks for Pain–Neuropathic Pain: How Should We Handle the Nerves? .................. 185  
25. What To Consider as Clinicians About Chronic Postoperative Pain and Inguinal Herniorrhaphy .......................... 191
26. Risk Factors for Chronic Pain After Groin Hernia Surgery .................................. 199  
27. Ischemic Inflammatory Response Syndrome as an Alternative Explanation for Postherniorrhaphy Pain .......................... 207
28. Postoperative CRPS in Inguinal Hernia Patients .................................. 213
29. Chronic Pain After Open Mesh Repair of Incisional Hernia .......................... 221
Contents

30 Clinical Results After Open Mesh Repair ........227
31 Acute and Chronic Pain After Laparoscopic
Incisional Hernia Repair ..............................223
32 Effect of Nerve Identification on the Rate
of Postoperative Chronic Pain Following
Inguinal Hernia Surgery ..............................239
33 Discomfort 5 Years After Laparoscopic
and Shouldice Inguinal Hernia Repair:
A Report from the SMIL Study Group ........245
34 Recurrence or Complication: The Lesser
of Two Evils? A Review of Patient-Reported
Outcomes from the VA Hernia Trial ..........251
35 Chronic Pain After Inguinal Hernia
Repair: The Choice of Prosthesis
Outweighs That of Technique .................257
36 The Effect of Polypropylene Mesh on
the Ilioinguinal Nerve in Open Mesh
Repair of Groin Hernia .............................265
37 Lightweight Macroporous Mesh vs.
Standard Polypropylene Mesh in
Lichtenstein Hernioplasty .........................275
38 Does the Choice of Prosthetic Mesh Type
Make a Difference in Postherniorrhaphy
Groin Pain? .........................................279
39 New Understanding of the Causes and
Surgical Treatment of Postherniorrhaphy
Inguinodynia and Orchialgia ......................287
40 Surgery for Chronic Inguinal Pain:
Neurectomy, Mesh Explantation, or Both? ...293
41 Results of Tailored Therapy for Patients
with Chronic Inguinal Pain .........................299

IV  Risk for Adhesion

42 Adhesion as a Chronic Inflammatory
Problem? Risk for Adhesions, Migration,
and Erosions? ......................................305
43 Biological Tissue Graft: Present Status ........317
44 IPOM Results of 344 Consecutive Patients
with a PVDF-Derived Prosthesis ..............323
45 Pooled Data Analysis of Laparoscopic vs.
Open Ventral Hernia Repair: 14 Years of
Patient Data Accual ...............................331
46 Tissue Ingrowth, Adhesion, and Mesh
Contraction ........................................345
47 Effect of Different Mesh Materials on
Adhesion Formation ...............................353
48 Tissue Ingrowth and Laparoscopic
Ventral Hernia Mesh Materials: An Updated
Review of the Literature .........................365
49 Porosity and Adhesion in an IPOM
Model ...............................................375
50 Benefit of Lightweight and/or Titanium
Meshes? .............................................381
51 ePTFE Prostheses and Modifications ..........393
52 The Role of Stem Cells in Abdominal
Wall Repair .........................................401

V  Risk for Migration and
Erosion

53 Safety and Durability of Prosthetic Repair
of the Hiatal Hernia: Lessons Learned from
a 15-Year Experience ...............................413
54 Mesh Migration into the Esophageal
Wall After Mesh Hiatoplasty ....................421
55 Complications After Gastric Banding–
Results in Germany .................................429
56 Alloplastic Implants for the Treatment
of Stress Urinary Incontinence and Pelvic
Organ Prolapse ......................................439
57 Prophylactic IPOM Mesh To Prevent
Parastomal Hernias .................................445
58 Laparoscopic Parastomal Hernia Repair:
Pitfalls and Complications ....................451
59 Concept of Visible Mesh and Possibili-
ties for Analysis of Mesh Migration and
Shrinkage ...........................................457

VI  Strategy to Improve Results

60 Who Has the Major Role in Hernia Surgery:
The Surgeon or the Material? ....................463
61 Two Controversial Concepts: Standard
Procedure in a Standard Patient Versus
Tailored Surgery with Procedures Adjusted
to Individual Patients ..............................467
VII Pro and Contra

62 In Support of a Standard Technique for Inguinal Hernia Repair .................475

63 In Support of Individual Selection of Technique as Related to the Patient–Improvement by Better Selection of Patients Who Can Be Offered a Less Risky Technique: Groin Hernia .....................479

64 In Support of Standard Procedure in Abdominal Hernia Repair ...............485

65 In Support of Individualized Procedures in Abdominal Wall Hernia Repair ........493

66 In Support of Standard Procedure in Hiatal Hernia Repair .......................503

67 Strategy To Improve the Results? In Support of Individualized Procedures in Hiatal Hernia Repair ......................513

68 Questionnaire .............................521

Subject Index .............................525
Hernia Repair Sequelae
Schumpelick, V.; Fitzgibbons, R.J. (Eds.)
2010, XIII, 529 p., Hardcover
ISBN: 978-3-642-04552-3