Contents

1. Essential Trauma Care 1
SK Kochar
Trauma Systems 11
Annexure 13

2. Prehospital Trauma Care 20
SK Kochar

3. Wound Ballistics 34
SK Kochar

4. Management of Ballistics Injuries 41
VK Sinha
Injuring Agent 41

5. Injury Severity Score 60
Siddharth Pramod Dubhashi

6. Management Protocols in Polytrauma 76
SK Kochar
First Priorities Protocols 77
Secondary Survey 80
Tertiary Survey 86

7. Trauma Care: Echelon Concept and Its Relevance 90
SK Kochar
First Echelon of Care 91
Second Echelon of Care 96
Third Echelon of Care 100
Fourth Echelon of Care 103
Editorial 106

8. Damage Control 110
Gurjit Singh
Anatomy 120

9. Neck Injuries **120**
SK Kochar
Radiological Evaluation 125
Management 130
Historical Review and Introduction 135

10. Spinal Trauma **135**
PK Sahoo
Biomechanics of Spine Injury 136

11. Head Injury **162**
PK Sahoo
Historical Review and Introduction 162
Head Injury 177
Incidence 190

12. Thoracic Trauma: General Consideration **190**
SK Kochar

13. Injuries of Chest Wall **199**
SK Kochar
Flail Chest 204
Pleura 213

14. Injuries of Lungs and Pleura **213**
SK Kochar
Pulmonary Parenchyma 214
Hemothorax 216
Post-traumatic Empyema 217
Pulmonary Contusion 218
Pulmonary Laceration 224

15. Injuries of Diaphragm **229**
SK Kochar

16. Abdominal Trauma: A Decision Making **235**
Gurjit Singh, B Easwaran
Diagnostic Laparoscopy 251
Decision Making 253
Evaluation of Blunt Trauma 254
Evaluation of Penetrating Abdominal Injuries (PAIs) 256
Incidence and Mechanism of Injury 271
Anatomy 271

17. Management of Hepatic Trauma **271**
SK Kochar
Intervention Radiology 294

18. Injuries of Spleen **299**
SK Kochar
Anatomy 299
Angiography 306

19. Injuries of Pancreas **319**
SK Kochar
Incidence and Mechanism of Injury 319
Diagnosis 320
Management 324

20. Injuries of Stomach **333**
SK Kochar
Pathophysiology 333
Diagnosis 334
Management 335

21. Injuries of Duodenum **340**
SK Kochar
Classification 340

22. Injuries of Small Intestines **352**
SK Kochar
Mechanism of Injury 352
Classification 353
Extraluminal 354
Complications 360

23. Injuries of Colon and Rectum **363**
SK Kochar
Colonic Injuries 363
Rectal Injuries 373

24. Renal, Ureter and Bladder Injuries **376**
Subhash Kotwal, Alok Kumar Jha
Renal Injuries 376
Ureteric Injuries 384
Bladder Injuries 388

25. Genital Injuries **393**
PM Deka, DK Sarma

26. Vascular Injuries **402**
Kumud Rai
Historical Background 402
Etiology 403
Anatomical Classification 403
Sequelae of Vascular Injuries 404
Clinical Assessment 405
General Principles of Vascular Repair 408
Extremity Vascular Injuries 412
Thoracic Vascular Injuries 415
Abdominal Vascular Injuries 419
Iatrogenic Injuries 424
Venous Injuries 427

27. Pelvic Trauma **431**
VK Sinha

28. Pediatric Trauma **443**
M Arora
Epidemiology 443
Specific Injuries 444
Acute Care 463
Diagnostic Modalities 469
Battered Baby 470
Shaken Baby Syndrome 471

Index *475*