

Contents

VOLUME 1

SECTION 1 General

1. **Approach to a Patient of Digestive Disease** 3
PK Mishra
2. **Gastrointestinal Imaging** 7
Raju Sharma, Ankur Goyal
3. **Infections and Antibiotics in Gastrointestinal Surgery** 18
Archana Thakur
4. **Nuclear Medicine Imaging in Gastrointestinal Diseases** 37
Rakesh Kumar, Sellam Karunanithi
5. **Radiation Therapy** 52
Kishore Singh, Arun Kumar Rathi
6. **Chemotherapy Principles and Techniques for Gastrointestinal Cancers** 61
Atul Sharma
7. **Nutritional Support to Hospitalized Patients** 69
Umesh Kapil, Namrata Singh
8. **Statistics for Surgeons** 86
Sreenivas
9. **Interventional Radiology of the Gastrointestinal Tract and Hepatobiliary System** 104
Amar Mukund, S Rajesh

SECTION 2 Esophagus

10. **Anatomy and Physiology of the Esophagus** 133
Nikhil Aggarwal
11. **Diagnostic Tests in Esophageal Diseases** 140
Shobna J Bhatia, Chirag Shah
12. **Approach to a Patient with Dysphagia** 151
Vishal Gupta
13. **Gastroesophageal Reflux Disease** 158
V Baskaran
14. **Motility Disorders of the Esophagus** 176
NS Balaji
15. **Esophageal Perforation: Diagnosis and Management** 184
Rajneesh Kumar Singh, Puneet Puri
16. **Corrosive Injury of Esophagus and Stomach** 194
N Ananthakrishnan, R Kalayarasan, Vikram Kate

17. **Benign Tumors of the Esophagus** 207
Vivek Mangla, Manoj Gupta
18. **Carcinoma Esophagus** 216
Kishore GS Bharathy, TK Chattopadhyay
19. **Esophageal Cancer: Operative Strategies and Lymphadenectomy** 229
CS Pramesh, George Karimundackal, Sabita Jiwnnani
20. **Multimodality Treatment in Carcinoma of the Esophagus** 237
Shaleen Kumar, Shagun Misra, Rajneesh Kumar Singh
21. **Minimal Invasive Esophagectomy** 247
Rajesh Bhojwani, Kapileshwar Vijay
22. **Esophageal Replacement Procedures** 257
Sundeep Jain, Neeraj Bhateja

SECTION 3 Stomach, Duodenum, Small Intestine and Retroperitoneum

23. **Stomach and Duodenum** 269
Neeraj Goel, PK Mishra
24. **Surgery for Peptic Ulcer Disease** 283
Vikram Kate, R Kalayarasan, TP Elamurugan, N Ananthakrishnan
25. **Carcinoma Stomach** 300
Durgatosh Pandey, Palaniappan Ramanathan, Pankaj Kumar Garg, Rambha Pandey
26. **Duodenal and Small Intestinal Tumors** 313
Monika Gupta
27. **Gastric Bezoar and Gastric Volvulus** 320
KJ Singh
28. **Intestinal Obstruction** 327
Sanjoy Mandal
29. **Abdominal Tuberculosis** 337
Nilesh Patil, RK Saran, Uday Somashekar
30. **Gastrointestinal Lymphomas** 348
Anurag Mishra, AK Sarda
31. **Visceral Artery Aneurysms** 355
RA Sastry, Venu Madhav Thumma
32. **Mesenteric Ischemia** 365
DK Sharma
33. **Radiation Enteritis: Pathophysiology, Prevention and Management** 381
Vineeta Goel, Pankaj Agarwal
34. **Gastrointestinal Stromal Tumor** 387
Subodh Varshney, Ajit Sewkani
35. **Retroperitoneal Tumors** 399
Sanjay Gupta

SECTION 4 Pancreas

- | | |
|-------------------------------------------------------------------------|------------|
| 36. Pancreas: Embryology, Anatomy and Physiology | 409 |
| <i>Harsh Shah, Sundeep Singh Saluja</i> | |
| 37. Acute Pancreatitis | 417 |
| <i>Pramod Kumar Garg</i> | |
| 38. Surgery in Acute Pancreatitis | 429 |
| <i>Mohammad Ibrarullah, Jayanth Reddy, VK Kapoor</i> | |
| 39. Pseudocyst and other Complications of Pancreatitis | 437 |
| <i>Chintamani Godbole, Nilesh Doctor</i> | |
| 40. Medical Management of Chronic Pancreatitis | 449 |
| <i>Harpal S Dhaliwal, Saroj K Sinha, Rakesh Kochhar</i> | |
| 41. Surgery for Chronic Pancreatitis | 465 |
| <i>Vikas Gupta</i> | |
| 42. Pancreatic and Periampullary Cancer | 485 |
| <i>Savio George Barreto, Adarsh Chaudhary</i> | |
| 43. Pancreatic Surgery | 494 |
| <i>Rajesh Rajalingam, PK Mishra</i> | |
| 44. Cystic Neoplasms of the Pancreas | 518 |
| <i>Masao Tanaka</i> | |
| 45. Neuroendocrine Tumors of the Pancreas | 535 |
| <i>Vinay Gaikwad, Mahesh Goel, Bhawna Sirohi, Shailesh V Shrikhande</i> | |
| 46. Minimally Invasive Approach to Pancreatic Lesions | 548 |
| <i>C Palanivelu, P Senthilnathan</i> | |
| 47. Pancreaticoduodenal Injuries | 558 |
| <i>Satish B Dharap</i> | |
| 48. Pancreas and Islet Transplantation | 565 |
| <i>Rakesh Rai</i> | |

SECTION 5 Gallbladder and Bile Ducts

- | | |
|----------------------------------------------------------------------------------------------|------------|
| 49. Gallbladder and Bile Ducts: Anatomy and Physiology | 577 |
| <i>Satyajit Godhi, PK Mishra</i> | |
| 50. Imaging of Liver and Biliary Tract | 586 |
| <i>Ankur Arora, Sunil Kumar Puri</i> | |
| 51. Endoscopic Retrograde Cholangiopancreatography in Biliary and Pancreatic Diseases | 609 |
| <i>Zaheer, D Nageshwar Reddy</i> | |
| 52. Gallstone Disease | 618 |
| <i>Avinash Supe, Ramkrishna Prabhu</i> | |
| 53. Current Management of Common Bile Duct Stones | 627 |
| <i>Jagdish Chander, Anubhav Vindal</i> | |
| 54. Cholangitis | 635 |
| <i>Gourdas Choudhuri, Pawan Rawal</i> | |

- | | |
|---------------------------------------------------------------------------|------------|
| 55. Biliary Atresia | 639 |
| <i>Yogesh Kumar Sarin, Sushmita Nitin Bhatnagar</i> | |
| 56. Choledochal Cysts | 650 |
| <i>Sundeep Singh Saluja, Mohammed Nayeem Vaibhav Varshneya</i> | |
| 57. Bile Duct Injury, Biliary Fistula and Benign Biliary Stricture | 662 |
| <i>Sundeep Singh Saluja, Nilesh Patil, Neeraj Goel</i> | |
| 58. Primary Sclerosing Cholangitis | 688 |
| <i>Siddharth Srivastava</i> | |
| 59. Recurrent Pyogenic Cholangitis | 696 |
| <i>Sukanta Ray</i> | |
| 60. Gallbladder Polyps | 701 |
| <i>Biju Pottakkat</i> | |
| 61. Carcinoma Gallbladder | 706 |
| <i>Asit Arora, PK Mishra</i> | |
| 62. Cholangiocarcinoma | 726 |
| <i>Rajan Saxena, Himanshu Yadav</i> | |

VOLUME 2

SECTION 6 Liver

- | | |
|--------------------------------------------------------------------------------------|------------|
| 63. Surgical Anatomy of the Liver | 743 |
| <i>Supriyo Ghatak, Anshuman Ray</i> | |
| 64. Liver Function Tests | 749 |
| <i>Kaushal Madan, Pankaj Tyagi</i> | |
| 65. Approach to a Patient with Jaundice | 757 |
| <i>R Surendran, Paari Vijayraghavan</i> | |
| 66. Liver Abscess | 762 |
| <i>Mihir K Mohapatra, Satya Prasad Samantaray Vedavyas Mohapatra</i> | |
| 67. Hydatid Disease of Liver | 766 |
| <i>Eppa Vimalakar Reddy, Mohan N, Ramesh Ardhnari</i> | |
| 68. Imaging and Intervention in Hemobilia | 784 |
| <i>Shivanand Gamanagatti, Prasad Thotton Veedu</i> | |
| 69. Hepatic Trauma | 789 |
| <i>Rajan Chaudhry, Anuj Sharma</i> | |
| 70. Approach to Space-occupying Lesion of Liver | 796 |
| <i>Nilesh Patil, PK Mishra</i> | |
| 71. Benign Liver Tumors | 814 |
| <i>Sudeep R Shah</i> | |
| 72. Malignant Neoplasms of Liver | 821 |
| <i>Sudhindran</i> | |
| 73. Liver Metastases | 830 |
| <i>Sanjay Govil, Ashwin Rammohan</i> | |
| 74. Perioperative Management in Patients with Biliary Tract and Liver Disease | 842 |
| <i>Ankur Garg, Sanjay Singh Negi</i> | |

75. Liver Resection	852	95. Surgery for Crohn's Disease	1100
<i>Girish K Pande, Sujoy Pal</i>		<i>Benjamin Perakath</i>	
76. Non-Cirrhotic Portal Hypertension	878	96. Colonic Polyps and Polyposis Syndromes	1107
<i>Shivraj Bahadur Singh, Vivek Mangla, Sujoy Pal</i>		<i>Brundaban Nahak, Debasis Misra</i>	
77. Budd-Chiari and other Vascular Diseases of Liver	895	<i>Shivaram Prasad Singh</i>	
<i>Prakash Jain, Shyamkumar N Keshava</i>		97. Colorectal Cancer: An Overview	1119
<i>Vinu Moses, Venkatramani Sitaram</i>		<i>Ashok Kumar, Puneet Puri</i>	
78. Cirrhosis and its Complications	907	98. Colectomy for Colon Cancer	1128
<i>Cyriac Abby Philips, SK Sarin</i>		<i>Ashok Kumar, Sunil T</i>	
79. Artificial Liver Support in Liver Failure	950	99. Surgery for Carcinoma Rectum	1132
<i>Rakhi Maiwall, Manoj Kumar Sharma</i>		<i>Shivendra Singh, Nikhil Gupta, Suhar Kumar</i>	
80. Surgery in Acute and Chronic Liver Disease	961	100. Recurrent Rectal Cancer and Pelvic Exenteration	1141
<i>Shalimar, SK Acharya</i>		<i>Sundeep Jain, Naresh Jangir</i>	
SECTION 7 Spleen			
81. Anatomy and Physiology of Spleen	967	101. Minimally Invasive Colorectal Cancer Surgery	1146
<i>AK Singh, Priya Ranjan</i>		<i>Subhash Mishra, Mohd Qaleem</i>	
82. Splenic Trauma	973	<i>Purak Mishra, Deepak Govil</i>	
<i>JK Banerjee</i>		102. Chemotherapy for Colorectal Cancer	1154
83. Splenic Cysts, Tumors and Abscess	979	<i>Sunil Kumar Gupta</i>	
<i>Hirdaya H Nag, R Kalayarasan</i>		103. Radiotherapy for Colorectal and Anal Carcinoma	1157
84. Non-Traumatic Splenectomy	984	<i>Swarupa Mitra</i>	
<i>Kamal Yadav, Deborshi Sharma</i>		SECTION 9 Liver Transplantation	
SECTION 8 Colon, Rectum and Anal Canal			
85. History and Examination in Colorectal Disease	993	104. History of Liver Transplantation	1169
<i>Nikhil Gupta, Shivendra Singh</i>		<i>Vinay Kumaran</i>	
86. Imaging in Colorectal Disease	997	105. Liver Transplantation in India	1172
<i>Poonam Narang</i>		<i>Vinay Kumaran</i>	
87. Anal Fistula	1009	106. Indications and Contraindications for Liver Transplantation	1175
<i>BK Jain, PK Garg</i>		<i>Vibha Verma, Vinay Kumaran</i>	
88. Rectal Prolapse	1023	107. Organ Preservation in Liver Transplant	1183
<i>Rajinder Parshad, Kamal Kataria, Saurabh Singhal, Kamlesh Kumar</i>		<i>Raghavendra Raja, Vinay Kumaran</i>	
89. Rectovaginal Fistula	1036	108. Anesthetic Management in Liver Transplantation	1187
<i>Ashok Kumar, Rakesh Kumar Singh</i>		<i>Vijay Vohra</i>	
90. Rectourethral Fistula	1043	109. Immunology of Liver Transplantation	1197
<i>Nitesh Patidar, MS Ansari, Ashok Kumar</i>		<i>Manav Wadhawan, John Joseph</i>	
91. Fecal Incontinence	1049	110. Pediatric Liver Transplant	1205
<i>Abhijit Chandra, Noushif M, Saket Kumar</i>		<i>Mohammed A Nayeem</i>	
92. Ulcerative Colitis	1055	111. Liver Transplantation in Acute Liver Failure	1215
<i>Praneeth Moka, Govind K Makharia</i>		<i>Dronacharya Routh, CS Naidu</i>	
93. Surgery for Ulcerative Colitis	1068	112. Deceased Donor Liver Transplantation	1226
<i>Rohin Mittal, Benjamin Perakath</i>		<i>Mohamed Rela, Gomathy Narasimhan</i>	
94. Crohn's Disease	1081	113. Living Related Liver Transplantation	1237
<i>Saurabh Kedia, Vineet Ahuja</i>		<i>Subhash Gupta, Neerav Goyal, Shaleen Agarwal</i>	
		114. Complications in Living Donor Liver Transplantation	1255
		<i>AS Soin, Punit Singla</i>	

SECTION 10 Miscellaneous

115. Variceal Upper Gastrointestinal Bleeding	1277	121. Chylous Ascites	1341
<i>Patta Radhakrishna, Pavan Addala</i>		<i>Vageesh BG, PK Mishra</i>	
116. Management of Nonvariceal Hemorrhage	1291	122. Acute Postoperative Pain and its Management in Major Abdominal Surgeries	1346
<i>Patta Radhakrishna, Pavan Addala</i>		<i>Baljit Singh, Indira Malik</i>	
117. Approach to the Management of Lower Gastrointestinal Hemorrhage	1298	123. Telemedicine: Principles and the Future	1352
<i>Atul Sharma</i>		<i>Shuzi Shimizu, Ho-Seong Han, Kuriko Kudo</i>	
118. Bariatric and Metabolic Surgery	1311	<i>Yoshiko Houkabe, Yasuaki Antoku, Naoki Nakashima</i>	
<i>Mahendra Narwaria, Ahmad Jan</i>		124. Surgery for Portal Hypertension	1357
119. Robotics in Gastrointestinal Surgery	1320	<i>Joseph George, Rajesh Panwar</i>	
<i>Arvind Kumar, Belal Bin Asaf</i>		<i>Sundeep Singh Saluja, Peush Sahni</i>	
120. Tumor Markers in Gastrointestinal Malignancy	1334	125. Ethics in Surgery	1367
<i>Nilesh Patil, Kunal Parasar, Sundeep Singh Saluja</i>		<i>Sanjay Nagral</i>	
		<i>Appendix</i>	1373
		<i>Index</i>	I-1