

CONTENTS

Preface	v
Color Plates	xi
Contributors	xiii

Part I. Historical Perspective

1. Portal Hypertension: A History	
Adrian Reuben and Roberto J. Groszmann	3

Part II. Pathobiology and Experimental Progress in Portal Hypertension

2. Anatomy and Vascular Biology of the Cells in the Portal Circulation	
Massimo Pinzani and Francesco Vizzutti	15
3. Cell and Molecular Mechanisms of Increased Intrahepatic Resistance and Hemodynamic Correlates	
Don C. Rockey	37
4. Molecular Mechanisms of Systemic Vasodilation and Hyperdynamic Circulatory State of Cirrhosis	
Richard Moreau and Didier Lebrec	51
5. Mechanisms of Sodium Retention, Ascites Formation, and Renal Dysfunction in Cirrhosis	
Andrés Cárdenas and Pere Ginès	65
6. Hepatic Hemodynamics in Portal Hypertension: Compliance, Hepatic Arterial Buffer Response, Hepatorenal Syndrome, and Liver Regeneration	
W. Wayne Lau and Zhi Ming	85
7. Neovascularization, Angiogenesis, and Vascular Remodeling in Portal Hypertension	
Manuel Morales-Ruiz and Wladimiro Jiménez	99
8. Mechanisms of Cardiopulmonary Hemodynamics and Dysfunction in Portal Hypertension	
Michael B. Fallon	113

Part III: Methodology to Assess Portal Hypertension in Humans

9. Measurement of Hepatic Venous Pressure Gradient: Methods, Interpretation, and Pitfalls	
G. Pomier-Layrargues and P. Michel Huet	129

10. Evaluation of Portal Hemodynamics Using Indicator Dilution and Noninvasive Techniques	
Juerg Reichen	145
11. Endoscopic Assessment of Portal Hypertension Including Variceal Pressure Measurements: Methods, Interpretation, and Pitfalls	
Àngels Escorsell and Jaime Bosch	155

Part IV: Natural History and Treatment of Esophageal Varices

12. Clinical Features and Natural History of Variceal Hemorrhage: <i>Implications for Surveillance and Screening</i>	
Juan G. Abraldes and Jaime Bosch	167
13. Management Strategies for the Prophylaxis and Treatment of Esophageal Variceal Rupture: An Overview	
Roberto de Franchis	183
14. Pharmacologic Therapy for the Management of Esophageal Varices: Biology and Utility of Available Agents	
Norman D. Grace and Richard S. Tilson	199
15. Endoscopic Treatment for Bleeding Esophageal Varices	
John P. Cello	221
16. Surgical Therapies for Management: <i>Surgical Shunts and Liver Transplantation</i>	
J. Michael Henderson	235
17. Transjugular Intrahepatic Portosystemic Stent-Shunt: <i>Technical Considerations and Clinical Utility in the Management of Variceal Hemorrhage</i>	
Dhiraj Tripathi, Peter C. Hayes, Doris N. Redhead, and Rajiv Jalan	247
18. Clinical Features and Management of Gastric Varices, Portal Hypertensive Gastropathy, and Ectopic Varices	
Charmaine A. Stewart and Patrick S. Kamath	267

Part V: Natural History and Treatment of Ascites and Hepatorenal Syndrome

19. Ascites: Clinical Features, Diagnosis, and Natural History	
Sakib Karim Khalid and Guadalupe Garcia-Tsao	285
20. Management of Ascites	
Florence Wong	301
21. Spontaneous Bacterial Peritonitis and Other Infections in Cirrhosis	
Rosa Maria Morillas and Ramon Planas	319
22. Diagnosis and Management of the Hepatorenal Syndrome	
Kevin Moore	343

Part V: Evaluation and Treatment in Special Circumstances of Portal Hypertension

23. <i>Pregnancy and Portal Hypertension</i>	
<i>Bimaljit Sandhu and Arun J. Sanyal</i>	365
24. <i>Causes and Management of Portal Hypertension in the Pediatric Population</i>	
<i>Frederick C. Ryckman, Maria H. Alonso, and Greg Tiao</i>	383
25. <i>Noncirrhotic Portal Hypertension and Portal Vein Thrombosis</i>	
<i>Shiv K. Sarin and Manav Wadhawan</i>	411
26. <i>Hepatic Venous Outflow Obstruction: Budd–Chiari Syndrome and Veno-Occlusive Disease (Sinusoidal Obstruction Syndrome)</i>	
<i>Hugo E. Vargas and Thomas D. Boyer</i>	433
27. <i>Pulmonary Complications Associated with Portal Hypertension</i>	
<i>Karen L. Swanson and Michael J. Krowka</i>	455
28. <i>Health Status Assessment and Economic Analyses in Cirrhosis and Portal Hypertension</i>	
<i>Jayant A. Talwalkar and W. Ray Kim</i>	469
29. <i>Future Treatments: Antifibrotic Agents, Nitric Oxide Donors, and Gene Therapy in the Treatment of Portal Hypertension</i>	
<i>Meena B. Bansal and Scott L. Friedman</i>	485
Index	505