

**Volume 23**

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**Advances in  
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## Preface

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This volume presents state-of-the-art discussions of common clinical problems, controversial areas in surgical practice, and fascinating new areas of research and technology.

Among the experts who have contributed to this volume are the late Dr. W. Dean Warren and his associates, who offer guidelines for the treatment of patients with portal hypertension. In addition, there is an up-to-date report from the group of Ludwig-Maximilians University in Munich on the integration of surgical techniques with lithotripsy in the management of patients with gallstone disease.

The practicing surgeon, resident, and student interested in surgical problems will find these articles and the other excellent contributions to be a valuable source of information and guidance.

*Ronald K. Tompkins, M.D.*

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# The Relative Role of Sclerotherapy vs. Surgical Procedures in Portal Hypertension\*

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Bleeding from gastroesophageal varices remains the most dramatic and devastating complication of the portal hypertensive syndrome. Death from cirrhosis is the fourth leading cause of mortality in the United States.<sup>1</sup> Death from chronic liver disease is increasing while mortality from cardiovascular disease and cancer is decreasing.<sup>2</sup> Surgeons have sought the optimum treatment for bleeding varices for 80 years and, yet, debate persists. This reflects the wide spectrum of available therapy options plus the diversity of disorders that have portal hypertensive bleeding as a symptom.<sup>3</sup>

Therapy for complications of the portal hypertensive syndrome has been the major clinical and research thrust of the Department of Surgery at Emory University School of Medicine, Atlanta, since 1971.<sup>4</sup> The approach has always been the following: to utilize quantitative methods to study physiologic parameters before institution of therapy, and then to restudy the patient with these same studies longitudinally over time to define the effect of treatment.<sup>5</sup> These quantitative methods, superimposed on the backdrop of the prospective randomized trial, have been instrumental in defining the superiority of selective distal splenorenal shunt<sup>6, 7</sup> and clarifying the role of chronic endoscopic sclerosis in the treatment of bleeding varices.<sup>8</sup> In addition, these methods and controlled trials have defined the spectrum of chronic liver disease.<sup>9</sup> Patients who are seen with variceal bleeding range from those who have excellent quantitative liver function and near-normal liver volume to those who have minimal hepatic reserve and very small livers.<sup>10</sup> We propose that there is no single therapeutic modality that is

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right for all patients within this spectrum. Clinical judgment, augmented by the results of the physiologic studies, can aid in choosing proper therapy for individual patients.

The purpose of this review is threefold: first, to define the problem of variceal bleeding in terms of its pathophysiology; second, to discuss options of therapy available; third, to describe the current approach to variceal bleeding.

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## The Problem

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### Definition of Portal Hypertension

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Portal hypertension is said to exist when the pressure in the portal venous circulation exceeds 10 mm Hg. Table 1 outlines the classification of portal hypertension. Although the most common cause worldwide is schistosomiasis, the majority of patients who present with variceal bleeding in the United States and Europe have obstruction to portal flow at the sinusoidal level (cirrhosis).<sup>3</sup> The type of cirrhosis encountered by the surgeon is a function of referral patterns and patient populations. One unfortunate aspect in the field of portal hypertension is that a majority of controlled trials and research protocols have been reported from centers where populations of subjects studied have a disproportionate number of alcoholic patients. There are major physiologic differences between alcoholic and non-alcoholic cirrhotic patients that must be appreciated in order to offer the best therapeutic option.<sup>11-13</sup>

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**TABLE 1.**  
**Classification of Portal Hypertension**

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Presinusoidal	
Intrahepatic	Schistosomiasis Primary biliary cirrhosis Sclerosing cholangitis (advanced) Primary hepatic fibrosis
Extrahepatic	Portal vein thrombosis Tumors
Sinusoidal	Cirrhosis Alcoholic Nonalcoholic
Postsinusoidal	Budd Chiari syndrome Acute Chronic Venooclusive disease

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