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SCHIFF'S DISEASES OF THE LIVER

TENTH EDITION

VOLUME ONE

EUGENE R. SCHIFF
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WILLIS C. MADDREY



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We dedicate this tenth edition of Diseases of the Liver to Telfer B. Reynolds, who was a great teacher, mentor, clinician and contributor to the science and practice of hepatology.

Furthermore we dedicate this edition to our wives Dana, Shirley and Ann for their continuing support of our endeavors.

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Preface to the First Edition

In the recent words of Himsworth, the present time seems to be particularly opportune for reviewing our knowledge of liver disease. A partial list of reasons would include the advances made in the fundamental sciences as they pertain to liver structure and function; the advances in the experimental approach to liver disease; the increased knowledge in the field of viral hepatitis; the newer clinical criteria and concept of hepatic coma, with attention focused on disturbance in the metabolism of ammonia; a better understanding of the pathogenesis and the treatment of cirrhosis; a clearer concept of the metabolic defect in hemochromatosis and the apparent effectiveness of depleting iron stores in the treatment of this disorder; the implication of disturbed copper metabolism in hepatolenticular degeneration; the increasing experience with needle biopsy of the liver; and the surgical attack on portal hypertension.

This book is not intended to be encyclopedic in nature but rather the expression of present-day information pertaining to various aspects of liver disease by a group of authors particularly qualified by their experience, interest, and scientific contributions. The reader may discover certain omissions, but he usually will find these to be matters of lesser importance. He will be more than compensated by the quality of the information contained, which deals with those aspects of hepatic disease that are much more apt to concern him, including the description of the principles of treatment, both medical and surgical, by experts in the field. Furthermore, he will frequently find it unnecessary to consult other books, particularly on points dealing with basic concepts.

To various contributors the editor expresses his deep gratitude for their excellent and willing cooperation. He has considered it good fortune indeed to have been associated with them in this undertaking. He wishes to express his thanks to Cecil J. Waston, Arthur J. Patek, Jr., and to his colleague, Edward A. Gall, for their helpful suggestions.

Leon Schiff

Preface

The editors trust that this 10th edition of *Diseases of the Liver* provides an accurate assessment of the many states of the art in hepatology. The platform on which hepatology is based has never been sturdier. The depth of understanding of many processes that take place in the liver and the multiple factors that affect them give us hope that ever more successful ways to diagnose and treat a variety of liver disorders is in the offing.

The clinical patterns and natural history of many liver diseases are now quite well described. The complex interactions that affect the course the individual patient with a liver disorder might follow are being assessed and to an ever-increasing extent understood. The 10th edition is introduced by a presentation of an approach to the evaluation of the patient with known or suspected liver disease utilizing history, physical examination, and widely available biochemical, serologic, and imaging studies. The 10th edition ends with a series of chapters on the present status of liver replacement. In between are remarkable chronicles of progress and the posing of questions yet to be answered. The foundations of hepatology based on clinical chemistry, imaging, and the power of properly interpreted liver biopsies are well described.

Considerable attention is paid to the hepatitis viruses and the consequences of infections with each. For hepatitis C, diagnostic and assessment methods are well established. The remarkable emergence of the story of hepatitis C is well told and embroidered in several chapters. The importance of hepatitis C genotype and the level of HCV RNA on outcome and likelihood of treatment success is emphasized. The ability to treat chronic hepatitis C has improved greatly during the last decade and new antiviral and immunomodulatory approaches are likely to emerge in the near future. What is missing for hepatitis C is an effective vaccine. The complex interactions between hepatitis C and other viruses have been recognized and the apparent synergistic effect of hepatic injury from hepatitis C and alcohol on fibrosis is an area receiving great attention.

Furthermore, interest in hepatitis B has never been higher. For hepatitis B, there are effective vaccines that have proved to be life changing in areas of the world where programs that ensure availability and utilization of vaccines have been successful. However, there are millions of patients already infected with hepatitis B and many are destined to succumb to the complications of cirrhosis or hepatocellular carcinoma unless further progress in therapeutic development occurs.

The importation of ideas from basic science and many disciplines and clinical lessons learned from other specialties are apparent throughout the book. One area of interest clearly influences another. The role of viruses and the response to the presence of the viruses in the development of hepatocellular carcinoma is a fascinating field. There has been a veritable explosion of the number of cases of hepatocellular carcinoma, especially those related to hepatitis C over the last few years.

The ability of an individual to favorably respond to an environmental insult (be it a virus or a chemical) is attracting considerable interest. In drug-induced liver disease, early (innate) responses may well determine whether a patient has a transient perturbation in the liver or develops a devastating illness.

Then there is the focus on the many roles and consequences of fat in the liver. Once considered benign, fat deposition in the liver is now viewed as a potential cause of cirrhosis and even a precursor of hepatocellular carcinoma. The stories of the interactions of fat and fibrosis have overtones of genetic influences, as well as associations with other disorders grouped as the metabolic syndrome, which are clearly of growing importance.

The ever-increasing importance of liver transplantation is recognized in this edition, with a separate section devoted to topics of importance to the clinician caring for patients before

and after liver transplantation. We have fashioned a book within a book regarding liver transplantation and trust this section will provide a comprehensive resource without the necessity to refer to more specialized references sources.

There is much more to be discovered and assimilated about the liver in the near future. Ways to modulate gene expression, understand (and even regulate) the many roles of nuclear receptors, the interactions of cytokines and hepatic growth factors, and the roles of metals and minerals—all these and many more areas are discussed in the 10th edition.

The editors and the authors are pleased to present this 10th edition. Differences are being made that will be life changing for patients with liver diseases. These are the best of times for those interested in the liver.

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