Preface

Recent advances in gastroenterology

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Guest Editor

The scientific understanding and clinical management of gastrointestinal diseases has been revolutionized by the application of endoscopic technology, laparoscopic surgery, molecular genetics, and scientifically-based pharmacotherapy. Internists, general practitioners, medical subspecialists, and surgeons, in addition to gastroenterologists, must become familiar with these recent advances to effectively diagnose, manage, and treat gastrointestinal diseases. This issue reviews recent advances in rapidly evolving areas of gastroenterology.

Endoscopy has become a central and ubiquitous technique for gastrointestinal diagnosis and therapy. The internist must refer patients for appropriate endoscopic indications and understand the clinical significance of endoscopic findings. This knowledge is becoming increasingly important in implementing screening and surveillance colonoscopy for colon cancer. The voluminous and highly clinically relevant subject of diagnostic endoscopy is thoroughly reviewed in three articles, one devoted to esophagogastroduodenoscopy, and two devoted to flexible sigmoidoscopy and colonoscopy. In particular, the indications, guidelines, and role of colonoscopy in screening and surveillance for colon cancer are reviewed to help the clinician reduce the incidence and mortality of this very common, but preventable, cancer.

Gastrointestinal endosonography has matured into a discipline with well-defined, albeit limited, applications. Drs. Sandhu and Bhutani comprehensively review this evolving field, with a focus on recent advances, particularly in invasive endosonography. Therapeutic endoscopy has become standard treatment for many causes of gastrointestinal bleeding. In addition to
discussing the classic role of endoscopic therapy for gastrointestinal ulcers and gastroesophageal varices, Drs. Kovacs and Jensen review the evolving and underappreciated role of endoscopic therapy for other bleeding gastrointestinal lesions.

Despite inroads by endoscopy, the radiologist still plays an important role in the management of gastrointestinal disorders. The article by Dr. Lefkovitz and colleagues comprehensively reviews the important and underappreciated role of mesenteric angiography and other radiologic procedures in the management of gastrointestinal bleeding and mesenteric ischemia. Angiography is becoming more important in the treatment of mesenteric ischemia because of technical improvements in angiographic catheters, balloon dilators, and stents for visceral arteries. While available for nearly a century for limited applications, the uses of laparoscopy have increased dramatically in terms of gastrointestinal applications, including cholecystectomy, appendectomy, and fundoplication, with the adoption of flexible fiberoptic technology. Dr. Scott-Conner comprehensively reviews recent developments in this ever more clinically relevant field.

Clinicians and researchers have recently focused on esophageal adenocarcinoma because it is the most rapidly increasing cancer in North America. The article by Dr. Spechler comprehensively reviews the pathophysiology of the precursor lesion of Barrett’s esophagus, the endoscopic and histologic diagnosis, surveillance endoscopy for Barrett’s esophagus, and therapy. The management of peptic ulcer disease has been revolutionized by the discovery of *Helicobacter pylori*. This important clinical area is carefully reviewed by Drs. Shiotani and Graham.

Colon cancer provides the best understood model of sequential mutations in carcinogenesis. This molecular model will undoubtedly profoundly influence the diagnosis, management, and treatment of colon cancer in the future. Drs. Robbins and Itzkowitz present the novel findings regarding the molecular genetics of syndromic and sporadic colon cancer. Progress in inflammatory bowel disease has been limited by a lack of understanding of the pathophysiology. Drs. Su and Lichtenstein report the latest findings about the pathophysiology, molecular genetics, and pharmacotherapy of inflammatory bowel disease. In particular, the recent discovery of the NOD2 gene may provide new insight into the pathogenesis of Crohn’s disease.

Irritable bowel syndrome is the most common, but least understood, gastrointestinal disorder. It has a profound impact on patients in terms of morbidity, on the economy in terms of lost days of employment, and on health care financing in terms of physician office visits. Dr. Hasler comprehensively discusses the current understanding about the pathophysiology and the evolving molecular approaches to therapy.

This work is not written in a vacuum, but is written and edited by individuals subjected to the pressures of family life, and exposed to the general events affecting society. I thank my wife Rosemary for her great patience while I worked long hours and many days on the writing or editing of the
articles. I want to thank my children Adina, David, Miriam, and Daniel for their understanding about my time spent in writing and editing. I want to thank my parents Paula and Charles Cappell for their support.

Much of this issue was written and edited during and following the events of 9-11. Near the epicenter of this tragedy, my life was physically disrupted for a brief period and emotionally traumatized for a longer period. How does a physician and educator respond to the events of 9-11? Perhaps by rededicating and redoubling one’s efforts in medical scholarship, education, and patient care. I hope this issue provides a small contribution to progress in medical care, as I dedicate this book to the victims of 9-11.

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