

Preface



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Guest Editor

Gastrointestinal emergencies are important to clinicians and their patients. They are relatively common. Mechanical gastrointestinal obstruction and acute upper gastrointestinal bleeding, for example, are each individually responsible for more than 300,000 hospitalizations each year in the United States [1,2]. These emergencies require urgent, correct, life-or-death decisions for a successful outcome. The clinician has to recognize a true gastrointestinal emergency among the vast number of patients presenting with mostly mundane abdominal complaints. Is this mundane chronic constipation or acute gastrointestinal obstruction? Does this abdominal pain arise from the irritable bowel syndrome or from early acute mesenteric ischemia? Is this bright red blood per rectum from hemorrhoids, the most common and least significant cause of gastrointestinal bleeding, or from exsanguinating upper gastrointestinal hemorrhage, a less common but highly lethal condition? If therapy is delayed because the emergency goes unrecognized, the mortality increases dramatically, as, for example, occurs with acute mesenteric ischemia [3].

For an emergency, the physician, perforce, compresses the usual elective evaluation into a rapid diagnostic algorithm. The history, physical examination, and diagnostic tests have to be appropriate and thorough but severely compressed in time, while the therapy is emergently instituted. The penalty for delays or errors is likely death [4].

Physicians confronted by these multiple challenges generally perform admirably. But as clinicians, we can do better. The overall mortality of gastrointestinal emergencies is 10% or greater. Even a 3% decrease in

mortality, when applied to the estimated one million or more gastrointestinal emergencies per year in America, translates into 30,000 lives saved each year! This number of saved lives is more than 10 fold greater than the annual mortality from the current American war in Iraq.

New clinical data based on clinical trials, novel diagnostic tests, and high technology therapies are increasing exponentially. For example, at least 10 different endoscopic therapies are available for hemostasis of upper gastrointestinal bleeding (see the article by Cappell and Friedel elsewhere in this issue). But which therapy is best for a given patient bleeding from a given gastrointestinal lesion?

To improve physician performance and decrease mortality, the physician has to function at an extremely high level, armed with the newest clinical studies, the most authoritative clinical algorithms, the latest consensus statements, and the best expert opinions. How is the busy practitioner—burdened by paperwork from insurance companies, mundane requirements of hospital bureaucracies, increasing governmental regulations, and increasing fiscal restraints in medical practice—expected to achieve this high level of performance? The clinician needs an up-to-date, authoritative, and concise but thorough clinical review.

The clinician employs the *Medical Clinics of North America* format of concise, up-to-date articles to try to achieve these goals. Gastrointestinal emergencies selected for this issue are relatively common, frequently life-threatening disorders that are rapidly changing in terms of diagnosis and therapy. The selected authors are practicing clinicians who are nationally recognized authorities in their fields. This issue is intended to aid the entire medical team involved in gastrointestinal emergencies: the internist requiring a sound working knowledge of the field, the gastroenterologist and other subspecialists needing an in-depth and up-to-date understanding of the field, the clinical researcher to comprehend areas of uncertainty and controversy to stimulate new clinical protocols and trials, and the medical inventor to understand the clinical needs and technical shortcomings of current devices to invent better ones.

Consider upper gastrointestinal bleeding. Despite the revolutionary development of endoscopic hemostasis, the mortality of this bleeding has stubbornly persisted at about 10% during the last 30 years [5]. Among other explanations for this phenomenon, lack of effective clinical implementation of endoscopic therapy is undoubtedly a contributing factor, as is insufficient medical resuscitation before endoscopy. The principles of rapid but thorough diagnostic evaluation as well as adequate fluid resuscitation, blood transfusion, and cardiopulmonary support are comprehensively reviewed in the first article by Drs. Cappell and Friedel. In a companion article the same authors extensively review the endoscopic diagnosis of gastrointestinal bleeding, the available endoscopic therapies, and their individual advantages, disadvantages, and indications, with a focus on novel therapies.

Variceal bleeding is highly important clinically because of its high mortality [6]. Drs. Toubia and Sanyal extensively cover the pathophysiology, diagnosis, and therapy of variceal bleeding. Mechanical intestinal obstruction still has a 10% mortality, mostly due to delayed and ineffective therapy. This disease is reviewed from the medical perspective by two gastroenterologists, Drs. Cappell and Batke, to emphasize the importance of rapid, effective diagnosis for aggressive surgery before ischemia or necrosis supervenes. Drs. Batke and Cappell also review colonic pseudoobstruction and ileus, medical conditions that closely mimic mechanical obstruction but are treated very differently. Their article comprehensively reviews this subject. The discussion on neostigmine is particularly important because neostigmine is insufficiently, clinically applied despite manifest efficacy [7].

Drs. Langell and Mulvihill admirably review gastrointestinal perforation and the acute abdomen. Of particular interest is the discussion of the pathophysiology and the differences between gastric, small intestinal, and colonic perforations. Acute vascular emergencies are highly important due to the frequency of clinical misdiagnosis with a consequently poor outcome. I commend Drs. Shanley and Weinberger on their authoritative review of this subject. The internist, general practitioner, and gastroenterologist must be knowledgeable about complications of inflammatory bowel disease. Drs. Marrero, Qadeer, and Lashner provide a superb review of this insufficiently appreciated subject.

Finally, the article on endoscopic mucosal resection (EMR) is essential reading for any student of gastrointestinal disease. The clinical benefits of this novel therapy are realized only insofar as this technique is clinically implemented. While widely implemented in Japan and Europe, advanced EMR is still unavailable in most American hospitals! Drs. Poppers and Haber provide a unique insight into this area as practitioners and researchers.

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