Johns Hopkins Manual of Gastrointestinal Procedures; Second Edition
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2008. SLACK Incorporated

This is the second edition of this manual that intends to cover all of the gastroenterological procedures commonly used in a hospital setting and possibly, but not explicitly, in an ambulatory surgery center (ASC). The format is standardized to include a section heading that addresses the indications and contraindications of a given procedure, followed by a description of the necessary equipment, and the related implications for nursing care before, during and after the procedure. Magnificent colored drawings and photographs or key devices also are depicted to illustrate the main concepts of execution and the relevant instrumentation.

The manual is aimed primarily at gastrointestinal nurses and assistants, but it would be very handy to GI fellows, residents rotating through the gastroenterology service, surgeons who perform endoscopy, technicians, and medical or nursing students. The manual provides a snap-shot of essentials as well as important tips regarding GI procedures. The second edition brings in many changes and updates thereby accomplishing its purpose to be relevant to the current, yet constantly evolving practice of GI endoscopy.

The manual is practical, easily accessible and readable. It contains 5 main chapters, 6 appendices, and a limited but essential bibliography. The introductory chapters address the important aspects of moderate sedation, the specifics of endoscopy preparation for patients with pre-existing medical conditions, and the essentials of cleaning and disinfection of endoscopic equipment. The manual then elaborates on a total of 44 sub-chapters in the format described above and enriched by illustrations. Its short and to-the-point sub-chapters cover not only basic techniques (i.e., upper endoscopy), but also advanced ones (i.e., endoscopic pancreatic pseudocyst drainage, functional tests, and endoscopic ultrasound). I could find shortcomings, including the omission of radiofrequency (HALO) ablation of Barrett’s esophagus, incisionless fundoplication (Esophyx), impedance pH monitoring, high-resolution manometry, and botulinum toxin injection of the anal sphincter. Other important issues are not covered or are covered in a cursory way including pneumatic dilation of achalasia, hemostatic clipping, injection of corticosteroids for the management of esophageal strictures, foreign body retrieval techniques and instrumentation, colonic stenting, as well as anorectal and antroduodenal motility studies. It also would be very useful if, at the end of each section, relevant CPT codes were listed.

Nevertheless this is an outstanding, easily accessible manual that contains practical information, and its readers will not be disappointed. It is hoped that the next edition will be even more expanded, and the current deficits will be covered adequately. The book will be extensively used by our nursing staff and fellows and will be a constant reminder that the myriad and complex things we do every day in the endoscopy unit can be done simply and safely.

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Relapse of IBD During Pregnancy: In-Hospital Management

To describe the treatment and response rates of severe colitis in pregnancy and to assess the effects of a severe relapse of colitis during pregnancy and birth outcomes, a case-controlled study of pregnant patients with IBD hospitalized for disease relapse at two large treatment centers was carried out between 1989 and 2001. Details of management of disease relapse and maternal and fetal outcomes were recorded.

Eighteen patients (11 UC, six Crohn’s, one indeterminate colitis), mean age 28.6 formed a study group. Forty-one age matched, pregnant IBD patients without disease relapse formed a control group. Study patients were hospitalized at a mean of 15.9 weeks gestation for a mean of 10.4 days. All eighteen patients received IV Hydrocortisone (mean dose 199 mg/day), and seven patients (39%) either continued taking or were commenced on immunomodulators: IV Cyclosporine (five patients) and AZA/6-MP (three patients). Fifteen patients (83%) had a clinical response to these medical treatments. Three patients required colectomy. There were significant differences between study and control groups in gestation (35 weeks vs. 38.7 weeks), respectively, and birth weight (2.001 grams vs. 3.018 grams), respectively.

It was concluded that treatment with IV Hydrocortisone and IV Cyclosporine appears effective in reducing remission of colitis, but their use must continue to be confined to severely ill patients being treated at specialized centers. Severe relapses of colitis during pregnancy increase the risk of preterm birth and low birth weight. (Reddy D, Murphy S, Kane SS, Present D, Cornbluth A. “Relapses of Inflammatory Bowel Disease During Pregnancy: In-Hospital Management and Birth Outcomes.” Amer J Gastroenterol, 2008; Vol. 103:1203-1209.)

Noradrenaline vs. Terlipressin in HRS

An open-labeled, randomized, pilot trial compared the efficacy of Terlipressin and Noradrenaline in the renal function and clinical outcome of patients with Hepatorenal Syndrome (HRS-1) and also sought predictors of response.

Forty consecutive patients with HRS-1 were randomized to receive Noradrenaline 1.5 to 3mg per hour and albumin (Group A, N = 20) or Terlipressin 0.5 to 2mg, 6 hourly and albumin (Group B, N = 20), until reversal of HRS or completion of 15 days of therapy. Systemic and renal parameters were monitored. Baseline parameters and delta creatinine at day four (DCD4) were used to predict response.

Two groups were comparable at baseline. At similar time points, 50% of patients in each group achieved primary end point. Patients in both groups had a significant decrease in serum creatinine at baseline (Group A day 4—2.4, day 8—1.6, and day 15—1.0; Group B day 4—2.5, day 8—1.8 and day 15—1.2 mg/dL) with progressive decrease in creatinine clearance. Median baseline plasma renin activity was reduced at 38 and 42 ng/mL per hour to 3 and 8 ng/mL per hour in Groups A and B, respectively. With therapy mean arterial blood pressure and urine output significantly increased in both groups. Eleven (55%) patients in Group A (10 responders) and an equal number in Group B (8 responders), survived until day 15.

Reversible Cardiac Ischemia Was Seen in One Patient in Each Group

Noradrenaline therapy was significantly less expensive than Terlipressin. On univariate analysis, the following baseline parameters predicted response to therapy: Lower grade of encephalopathy, low MELD Score, higher creatinine clearance, higher mean arterial pressure (MAP) and lower plasma renin activity. However, on multivariate analysis, only baseline creatinine clearance, MAP, plasma renin activity were independent predictors of response. At day four of therapy, DCD4 was computed at a value of 0.15 mg/dL/day for more accurately predicted response. The sensitivity, specificity, positive predictive value and negative predictive value for DCD4 at 0.5 mg/dL/day for predicting response to therapy were 90%, 75%, 78% and 88%, respectively.

It was concluded that Noradrenaline may be an effective and safe alternative to Terlipressin in improving renal function. Various baseline parameters and DCD4 were used to predict response to therapy. (Sharma P, Kumar A, Sharma D, Sara NS. “An Open Label, Pilot, Randomized Controlled Trial of Noradrenaline Vs. Terlipressin in the Treatment of Type I Hepatorenal Syndrome and Predictors of Response.” Am J Gastroenterol, 2008; Vol. 103, 1689-1697.)

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IFFGD is Seeking Applications for 2009 Research Awards

IFFGD is seeking applications/nominations for research awards. The awards will be given to active investigators in six categories who have a record of research interest in basic mechanisms or clinical aspects of functional gastrointestinal and motility disorders, and neurogastroenterology. These awards of $7,500 each are intended to encourage the participation of clinicians and scientists in multidisciplinary efforts aimed at advancing the understanding of these basic mechanisms and clinical aspects in adults and in children. The individuals selected for awards will be recognized at IFFGD’s 8th International Symposium for Functional GI Disorders to be held in Milwaukee, WI on April 17–19, 2009. The deadline for receipt of applications is October 20, 2008.

Details are on our web page at: www.giresearch.org/site/gi-research/iffgd-research-awards/2009

Study Shows that PillCam® SB Helps Doctors Treat Children with Crohn’s Disease More Effectively

PillCam capsule endoscopy of the small bowel provides new information; may lead to more precise treatment and better outcomes

A study published in the July issue of the Journal of Pediatric Gastroenterology and Nutrition found PillCam capsule endoscopy of the small bowel may enable more targeted and effective therapies for children with Crohn’s disease. According to the study, the opportunities for improved treatment regimens were a direct result of reclassifying inflammatory bowel disease (IBD) from ulcerative or indeterminate colitis to definitive Crohn’s disease and from uncovering a more significant burden of small bowel disease for those children already diagnosed with Crohn’s disease.

The retrospective cohort analysis was conducted by Stanley Cohen, M.D., of the Children’s Center for Digestive Healthcare in Atlanta, Georgia.

“PillCam SB is a valuable tool that allows gastroenterologists to make better medical decisions and tailor pharmacological management, resulting in improved patient outcomes for those who suffer from IBD,” said Dr. Cohen. “Information obtained through PillCam SB capsule endoscopy can enable us to reclassify disease or understand the full extent to which the disease is affecting patients, thus facilitating more targeted and effective treatment regimens.”

The retrospective cohort analysis examined the medical records of patients from ages two to 18 years of age who had been previously diagnosed with Crohn’s disease, ulcerative colitis or indeterminate colitis and whose disease had flared within the previous three years, leading to capsule endoscopy. Twenty-eight (28) patients met the criteria for inclusion in the study. Key findings include:

- 71% (5/7) of patients with ulcerative or indeterminate colitis had small bowel CE findings that led to reclassification of disease (from ulcerative or indeterminate colitis to Crohn’s disease), resulting in a change in medical management.
- 62% (13/21) of patients with Crohn’s disease were found to have more extensive (more proximal) small bowel disease than previously identified, 92% of which occurred in the jejunum, suggesting that pediatric Crohn’s disease may involve the proximal small bowel more than previously reported.
- Of those with previously unrecognized jejunal disease, 92% (11/12) of treatment regimens were altered based upon the new CE findings.

The study authors also noted an additional benefit of CE was to help patients and their parents better understand the disease process and rationale for therapeutic recommendations.

The PillCam SB 2 video capsule, when used with the PillCam Platform, is intended for visualization of the small bowel mucosa. It may be used as a tool in the detection of abnormalities of the small bowel in adults and children from 10 years of age and up. The PillCam SB 2 video capsule and PillCam Platform are not cleared for use in children under 10 years of age and should not be used outside of the context of approved clinical trials with such patients.

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