Use of Lactobacillus GG for Treatment of Allergic Colitis in Children

Cow’s milk protein allergy (CMPA) is a relatively common gastrointestinal disease in infants and is associated with rectal bleeding and diarrhea. CMPA involves intestinal inflammation, and fecal calprotectin, a marker of intestinal inflammation, may be helpful in following the disease course of CMPA. The authors of this study evaluated calprotectin as a marker of disease activity in CMPA and also evaluated the therapeutic efficacy of Lactobacillus GG added to hydrolyzed casein infant formula for treatment of CMPA.

Infants between 0 to 12 months of age with CMPA were compared to age-matched, sex-matched controls. CMPA infants underwent multiple tests at enrollment including prick test for cow’s milk, patch test for cow’s milk protein, C-reactive protein, fecal occult blood, stool tests for bacterial pathogens and parasites, and fecal calprotectin. CMPA infants were then randomized to receive hydrolyzed infant formula or hydrolyzed infant formula with the addition of Lactobacillus GG. A repeat fecal calprotectin test was performed one month after this formula intervention.

Thirty patients were enrolled in the intervention group, and 32 patients were enrolled in the control. Fecal calprotectin levels were significantly higher in CMPA infants compared to control infants at enrollment. In all groups, including the control group, fecal calprotectin levels decreased four weeks after initial enrollment. However, a mean decrease in fecal calprotectin levels was significantly greater in infants who received hydrolyzed formula with Lactobacillus GG compared to infants who received hydrolyzed formula alone or to a separate control group. Significantly more infants receiving hydrolyzed formula with Lactobacillus GG became fecal occult blood negative compared to those infants receiving hydrolyzed formula alone. This study suggests that the addition of Lactobacillus GG to hydrolyzed casein infant formula leads to greater mucosal healing in CMPA infants. Additionally, fecal calprotectin appears to correlate well with intestinal inflammation in CMPA and may prove to be a useful marker for this disease. (Baldassarre M, Laforgia N, Fanelli M, Laneve A, Grosso R, Lifschitz C. “Lactobacillus GG improves recovery in infants with blood in the stools and presumptive allergic colitis compared with extensively hydrolyzed formula alone.” The Journal of Pediatrics. 2010; 156: 397-401).

Association of Bacterial Enteritis and Intussusception in Children

Intussusception is a major case of bowel obstruction in young children, and it is commonly associated with viral gastroenteritis which may cause lymphoid hyperplasia of the Peyer’s patches as a lead point. Bacterial enteritis has been described in case reports as a cause of intussusception in children; however, this association has not been studied in any retrospective manner.

The authors of this study had access to the United States Department of Defense Patient Administration Systems and Biostatistics Activity database. All children at or below age 5 years who were seen in clinic or in hospital from 2002 to 2005 in the database were evaluated. If a patient was noted to have been diagnosed with one of several common bacterial enteritis pathogens, they were evaluated over a 6-month time period to see if a diagnostic code for intussusception subsequently was noted.

During this time period, 387,514 patient encounters were noted, and 293 encounters were associated with intussusception. Also, 1412 patient encounters were documented as bacterial enteritis, and 12.6% of the intussusception cases were associated with bacterial enteritis. There was a significant increase in absolute risk of intussusception in those patients with a history of bacterial enteritis (35-fold increased risk). The most common bacterial pathogen associated with intussusception was Salmonella (39% of cases), and the median time between infection and intussusception development was 58 days.

This data provides evidence that prior bacterial enteritis increases the risk of intussusception in children, possibly due to continuing lymphoid hyperplasia in the bowel providing a lead point or due to altered gut motility after infection. (Nylund C, Denson L, Noel J. “Bacterial enteritis as a risk factor for childhood intussusception: a retrospective cohort study.” The Journal of Pediatrics. 2010; 156: 761-765).

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Curbside Consultation of the Pancreas: 49 Clinical Questions
ISBN: 978-1556428142; 272 pages; $79.95

Pancreatology is a rapidly expanding field of clinical science. The widespread dissemination of EUS and the emergence of new clinical entities such as autoimmune pancreatitis have changed significantly the evaluation and treatment of many of pancreatic disorders over the past several years.

“Curbside Consultation of the Pancreas” edited by Tenner, Brown and Gress is designed to review the current state of pancreatology and to help provide readers ranging from medical students to gastroenterologists with up-to-date answers to 49 clinical questions that can be encountered in day-to-day clinical practice. The book is composed of 7 sections: acute pancreatitis, chronic pancreatitis, cystic pancreatic lesions, pancreatic cancer, other pancreatic neoplasms, biliary diseases and miscellaneous questions. Each section consists of several clinical questions, each of which is followed by a detailed answer with images and references. The answers discuss relevant clinical and pathophysiology issues, provide an encapsulated literature review, and include a summary with a recommended management approach.

The book is written in straightforward medical language and is easy to understand. It is supplemented with many visual aids including tables and treatment algorithms and is lavishly illustrated with endoscopic and radiographic images (EUS, CT, MRI and others). The chapters are written by a variety of authors including medical residents and fellows, although Dr. Tenner himself is a co-author on the majority of chapters.

Several topics are addressed multiple times in the book as some clinical conditions and questions have a degree of overlap; thus, the reader is able to see relationships between clinical entities and management strategies from different perspectives. There is some overlap of the contents of this book with other books in this series, especially “Curbside Consultation in Endoscopy” by Drs. Leung and Lo. There also is an extensive focus on endoscopic issues which may be of more interest to some readers (gastroenterologists) than others (hospitalists).

Overall, “Curbside Consultation of the Pancreas” provides a timely and thorough review of clinical pancreatology for the reader. General gastroenterologists and GI fellows will probably find the book the most helpful, although students, medicine residents, surgeons and hospitalists would benefit from having the book on hand as a clinical reference work.

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Famotidine Vs. Pantoprazole in Aspirin-Related Gastropathy

To compare the efficacy/erosions in preventing recurrent symptomatic ulcers/erosions, a randomized, double-blind, control trial of 160 patients with aspirin-related peptic ulcer/erosions, with or without a history of bleeding was performed.

Patients were given either Famotidine 40 mg morning and evening or Pantoprazole 20 mg in the morning and placebo in the evening. All patients continued to receive aspirin 81 mg q.d. The primary end point was recurrent dyspepsia or bleeding ulcer/erosions within 48 weeks.

A total of 130 patients completed the study. Thirteen of 65 patients in the Famotidine group reached the primary end point (20%), compared with zero of 65 patients in the Pantoprazole group. Gastrointestinal bleeding was significantly more common in the Famotidine group than the Pantoprazole group (7.7% vs. 0%), as was recurrent dyspepsia caused by the ulcers/erosions (12.3% vs. 0%). No patients had ulcer perforation or obstruction.

It was concluded that in patients with aspirin-related peptic ulcer/erosions, high-dose Famotidine therapy is inferior to Pantoprazole in preventing recurrent dyspepsia or bleeding ulcer/erosions. (Ng, F., Wong, S., Lam, K., et al. “Famotidine is Inferior to Pantoprazole in Preventing Recurrence of Aspirin-Related Peptic Ulcers or Erosions.” Gastroenterology, 2010; Vol. 138, pp. 82-88.)

Clopidogrel and PPIs

To examine the association between concurrent use of PPIs and Clopidogrel, and the risk for hospitalization for gastroduodenal bleeding and serious cardiovascular disease, a retrospective cohort study was carried out, using automated data to identify patients who received Clopidogrel between 1999 to 2005, after hospitalization for coronary heart disease.

A total of 20,596 patients were reviewed, including 7,593 concurrent users of Clopidogrel and PPIs, hospitalized for myocardial infarction, coronary artery revascularization, or unstable angina pectoris. Baseline and follow-up drug use was assessed from automated records of dispensed prescriptions. Primary outcomes were hospitalizations for gastroduodenal bleeding and serious cardiovascular disease.

Pantoprazole and Omeprazole accounted for 62% and 9% of concurrent PPI use, respectively. Adjusted incidence of hospitalization for gastroduodenal bleeding in concurrent PPI users was 50% lower than that in nonusers (HR 0.50). For patients at highest risk for bleeding, PPI use was associated with an absolute reduction of 28.5 hospitalizations for gastrointestinal bleeding per 1,000 person/years.

The hazard ratio associated with concurrent PPI use for risk for serious cardiovascular disease was 0.99 for the entire cohort, and 1.01 for the subgroup of patients who had percutaneous coronary interventions with stenting during the qualifying hospitalization.

It was concluded that in patients with serious coronary heart disease treated with Clopidogrel, concurrent PPI use was associated with reduced incidence of hospitalizations for gastrointestinal bleeding. The corresponding point estimate for serious cardiovascular disease was not increased. (Ray, W., Murray, K., Griffin, M., et al. “Outcomes of Concurrent Use of Clopidogrel and Proton Pump Inhibitors: A Cohort Study.” Annals of Internal Medicine, Vol. 152, No. 6, March 16, 2010, pp. 337-345.)

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Preventing Diverticular Disease

Diverticulosis is an extremely common condition that affects the colon. Yet it is often overlooked because it produces few if any symptoms. When diverticulosis becomes diverticulitis, though, blissful ignorance gives way to pain or bleeding. You can avoid these problems by taking several simple steps, reports the August 2010 issue of Harvard Men’s Health Watch.

Diverticula are saclike pouches that protrude from the smooth muscular layer of the colon. They tend to develop where the muscles are weakest, at the places where blood vessels cross through the muscles. The appearance of these pouches is called diverticulosis. The condition usually develops after age 40; about one-third of Americans develop diverticulosis by age 60, and two-thirds have it by age 85. In 15% to 20% of people with diverticulosis, the pouches become inflamed (diverticulitis), causing symptoms.

Diverticulosis was uncommon in the United States 100 years ago. The principal factor driving its increase is diet, especially the consumption of refined carbohydrates. Refined carbohydrates deprive you of fiber, which is needed to speed and ease the process of elimination. Without enough fiber, the colon must contract with extra force to expel stool. That puts more pressure on the colon wall, which increases the risk for diverticulosis and its complications. Other possible risk factors include high consumption of fat and red meat, obesity, cigarette smoking, and the use of nonsteroidal anti-inflammatory drugs such as ibuprofen or naproxen. Regular physical activity appears to reduce risk.

Harvard Men’s Health Watch notes that diverticulardisease is largely preventable. A high-fiber diet sharply reduces the risk of developing diverticula. Even after the pouches form, dietary fiber reduces the likelihood they will become inflamed and cause pain or bleeding. The Institute of Medicine recommends 30 to 38 grams of fiber a day for men and 21 to 30 grams for women, depending on age.

Although prevention is always best, Harvard Men’s Health Watch also reviews new ways to diagnose and treat diverticular disease and its complications.

Harvard Men’s Health Watch is available from Harvard Health Publications (www.health.harvard.edu), the publishing division of Harvard Medical School, for $28 per year. Subscribe at www.health.harvard.edu/men or by calling (877) 649-9457 (toll-free).

Study in Health Affairs Confirms Quality, Safety of Nurse Anesthetist Care

Authors Recommend that Medicare Repeal Physician Supervision Requirement for CRNAs

There are no differences in patient outcomes when anesthesia services are provided by Certified Registered Nurse Anesthetists (CRNAs), physician anesthesiologists, or CRNAs supervised by physicians, according to the results of a new national study conducted by RTI International. The study, titled “No Harm Found When Nurse Anesthetists Work Without Supervision by Physicians,” appears in the August issue of Health Affairs.

The RTI study examined nearly 500,000 individual cases and confirms what previous studies have shown: CRNAs provide safe, high-quality care. The study also shows the quality of care administered is equal regardless of supervision.

Currently, the Centers for Medicare & Medicaid Services (CMS) prohibits Medicare payments to hospitals and ambulatory surgery centers when CRNAs provide anesthesia care in the absence of physician supervision. However, starting in 2001 CMS began allowing states to “opt out” of the Medicare physician supervision requirement for CRNAs. Since then 15 states—most recently California in 2009—have opted out.

The RTI findings demonstrate that the Medicare physician supervision rule for CRNAs is obsolete and unnecessary. The study compared patient outcomes in states where the supervision requirement is in place with patient outcomes in the 14 states that had opted out of the requirement between 2001 and 2005, and found that patient outcomes did not differ. “We find no evidence that opting out of the oversight requirement harms patients in any way,” said study author Jerry Cromwell, PhD. “Based on these findings we recommend that CMS repeal the supervision rule.”

“The results validate what we have known all along—that the quality of care and safety record of nurse anesthetists is of the highest caliber, regardless of physician supervision,” said James Walker, CRNA,
DNP, president of the American Association of Nurse Anesthetists (AANA). “The data clearly show that there has not been a disparity in care in states that have opted out of the supervision requirement. In fact, the opt-out states have given nurse anesthetists the opportunity to prove, beyond a shadow of a doubt, what patients are most interested in knowing, and that is whether anesthesia is equally safe when provided by CRNAs or their physician counterparts. I’m happy to emphatically report that yes, it is.”

“Motivated by the safe, excellent care that nurse anesthetists provide, 15 governors have decided to opt out of the Medicare payment rule, choosing instead to allow hospitals to make their own decisions on anesthesia staffing. This growing trend continues as states recognize the excellent skills and high-quality care of nurse anesthetists,” said AANA President-elect Paul Santoro, CRNA, MS. “This study should encourage other states to think critically about their healthcare needs and how nurse anesthetists can expand access to anesthesia services.”

Other research and data support the RTI finding that there are no differences in quality of anesthesia services delivered by CRNAs and anesthesiologists. Most recently, a study about the cost effectiveness of nurse anesthetists released in May included a comprehensive review of published studies. The review found no measurable differences in the care provided by CRNAs and anesthesiologists. Equally important, the study showed CRNA-only anesthesia care to be the most cost-effective anesthesia-delivery model.

For more information, visit www.rti.org

New Olympus V-System Expands Options for ERCP

Olympus America Inc., a precision technology leader designing and delivering innovative solutions in medical and surgical products among other core business areas, today launched its new V-System. The new V-System combines Olympus’ latest duodenoscope, the TJF-Q180V, with its unique V-System devices for the endoscopic retrograde cholangiopancreatography (ERCP) procedure. The TJF-Q180V is the first duodenoscope to feature Narrow Band Imaging (NBI) and a dual guidewire locking mechanism that securely supports a short guidewire exchange. The scope also features a larger and higher resolution image than its predecessor. The new V-System was developed by Olympus to help address the challenges of the ERCP procedure and allow physicians to achieve and maintain access to the biliary system with greater ease.

The new V-System also provides physicians with a choice of distally wire-guided or conventional over-the-wire devices. The guidewire locking mechanism on the new TJF-Q180V securely locks a 0.025 inch or 0.035 inch guidewire to support a short guidewire exchange. Traditionally, short-wire systems have been limited in their ability to use devices other than those sold with the proprietary system. The new Olympus V-System has been designed as an “open system,” which offers clinicians the flexibility to combine other proprietary devices to best match their clinical needs and achieve cost efficiency.

“I consider the TJF-Q180V to be the new gold standard in ERCP technology,” said David R. Lichtenstein, MD, director of endoscopy at Boston Medical Center. “The development of the V-System by Olympus offers the freedom to choose between long and short-wire approaches and solo endoscopy versus assistant-aided guidewire manipulation. In my experience, the enhanced V-System allows for faster device exchanges, less fluoroscopy time, and single operator manipulation of the guidewire during cannulation, translating into a potential reduction in complications such as pancreatitis,” added Lichtenstein.

“The V-System is a result of our company’s focus on endoscopic innovation and meeting the needs of our customers,” said Patrick MacCarthy, Vice President of EndoTherapy for Olympus America’s Medical Systems Group. “The physicians, nurses and technicians that we serve have asked for an ERCP solution that will enable short-wire exchange, but also include the flexibility to switch between physician and assistant control of the devices. They also demanded that the system be “open,” so that their device choices would not be limited to one company. We listened, and I’m delighted to say that we can now deliver a solution that will allow for the best patient care, while also driving cost efficiency.”

For additional information on the V-System, please visit www.olympusamerica.com/v-system.