

## Use of Famotidine to Prevent Peptic Ulcers and Esophagitis

According to a July issue of *Lancet*, researchers at the University of Glasgow in Kilmarnock, United Kingdom conducted a phase III, randomized, double-blind, placebo-controlled trial to evaluate the effectiveness of famotidine for preventing peptic ulcers and erosive esophagitis in patients taking low-dose aspirin for vascular protection. The trial was comprised of patients ( $\geq 18$  years of age) from the cardiovascular, cerebrovascular, and diabetes clinics at a single center who were taking aspirin 75–325 mg per day with or without other cardioprotective medication. A computer-generated randomization sequence randomly assigned patients without ulcers or erosive esophagitis (based upon baseline endoscopy) to famotidine 20 mg twice daily ( $n=204$ ) or placebo twice daily ( $n=200$ ). A final endoscopic examination was performed at 12 weeks. The primary endpoint was defined as the development of new stomach or duodenal ulcers or erosive esophagitis at 12 weeks following randomization. The researchers performed intention-to-treat analysis, which included all randomized patients who took at least one dose of famotidine or placebo, and noted that 82 patients (famotidine,  $n=33$ ; placebo,  $n=49$ ) did not undergo the final endoscopic examination. (These patients were classified as having normal findings.)

At 12 weeks, gastric ulcers had developed in 7 (3.4%) of 204 patients in the famotidine arm compared to 30 (15.0%) of 200 patients in the placebo arm (odds ratio [OR], 0.20; 95% confidence interval [CI], 0.09–0.47;  $P=.0002$ ), duodenal ulcers in 1 (0.5%) patient in the famotidine arm compared to 17 patients in the placebo arm (8.5%; OR, 0.05; 95% CI, 0.01–0.40;  $P=.0045$ ), and erosive esophagitis in 9 (4.4%) patients in the famotidine arm compared to 38 patients in the placebo arm (19.0%; OR, 0.20; 95% CI, 0.09–0.42;  $P<.0001$ ). Fewer adverse events were reported in the famotidine arm (9) than in the placebo arm (15), and 4 patients in the placebo arm required hospitalization due to upper gastrointestinal hemorrhage.

## Capsule Endoscopy and Colonoscopy for Detection of Colorectal Polyps and Cancer

A July issue of *The New England Journal of Medicine* reported the results of a prospective, multicenter study

evaluating capsule endoscopy and optical colonoscopy in a cohort of patients at Erasme University Hospital in Brussels, Belgium with identified or suspected colonic disease for detecting colorectal polyps or cancer. A total of 328 patients (mean age, 58.6 years) underwent an adapted colon preparation, with colon cleanliness graded from poor to excellent.

In 92.8% of the patients, the capsule was excreted within 10 hours of ingestion and before the battery died. The researchers noted that the sensitivity and specificity of capsule endoscopy for identifying polyps 6 mm in size or larger were 64% (95% CI, 59–72) and 84% (95% CI, 81–87), respectively, whereas, for detecting advanced adenoma, the sensitivity and specificity were 73% (95% CI, 61–83) and 79% (95% CI, 77–81), respectively. Nineteen cancers were identified by colonoscopy, and 14 of these were also detected by capsule endoscopy (sensitivity, 74%; 95% CI, 52–88). For all lesions, the sensitivity of capsule endoscopy was higher in patients with good or excellent colon cleanliness than in those with fair or poor colon cleanliness. In 26 patients (7.9%), mild-to-moderate adverse events (mostly related to the colon preparation) were reported. The researchers concluded that, in most patients, capsule endoscopy enabled visualization of colonic mucosa, though its sensitivity for identifying lesions was low compared to colonoscopy.

## Hepatitis C Treatment With Peginterferon Alfa-2b Versus Peginterferon Alfa-2a With Ribavirin

A team of researchers conducted a comparative effectiveness study, the largest of its kind, to compare the effectiveness of hepatitis C virus (HCV) treatment with peginterferon alfa-2b or peginterferon alfa-2a, both plus ribavirin. The study, the results of which were published online ahead of print on July 22 for *The New England Journal of Medicine*, examined patients with HCV genotype 1 at 118 US medical centers who were treatment-naïve. These patients ( $N=3,070$ ) were randomly assigned to 48 weeks of treatment with one of the following three regimens: peginterferon alfa-2b at either a standard dose of 1.5  $\mu\text{g}/\text{kg}$  of body weight per week or a low dose of 1.0  $\mu\text{g}/\text{kg}$  per week, plus ribavirin at a dose of 800–1,400 mg per day, or peginterferon alfa-2a at a dose of 180  $\mu\text{g}$  per week plus ribavirin at a dose of 1,000–1,200 mg per day.

The researchers noted similar sustained virologic response rates for all three groups: 39.8% with standard-dose peginterferon alfa-2b; 38.0% with low-dose peginterferon alfa-2b; and 40.9% with peginterferon alfa-2a ( $P=.20$  for standard- vs low-dose peginterferon alfa-2b;  $P=.57$  for standard-dose peginterferon alfa-2b vs peginterferon alfa-2a). The researchers estimated the differences in response rates to be 1.8% (95% CI,  $-2.3-6.0$ ) between standard- and low-dose peginterferon alfa-2b and  $-1.1\%$  (95% CI,  $-5.3-3.0$ ) between standard-dose peginterferon alfa-2b and peginterferon alfa-2a. The standard-dose peginterferon alfa-2b arm experienced a relapse rate of 23.5% (95% CI, 19.9–27.2) compared to 20.0% (95% CI, 16.4–23.6) for the low-dose peginterferon alfa-2b arm, and 31.5% (95% CI, 27.9–35.2) for the peginterferon alfa-2a arm. All three arms exhibited similar safety profiles, and side effects such as anemia, fatigue, headache, nausea, insomnia, and depression were commonly observed in study participants. Serious adverse events were noted in only 8.6–11.7% of the subjects. Of the patients who had undetectable HCV RNA levels at Weeks 4 and 12, sustained virologic response was achieved in 86.2% and 78.7%, respectively. The authors concluded that in patients with HCV genotype 1, sustained virologic response and tolerability did not differ significantly between the two peginterferon-ribavirin regimens or between the two doses of peginterferon alfa-2b. The researchers also noted that the next steps for research would focus on profiling individuals who do better on each drug regimen to identify standout factors that predispose some individuals to success on one drug over another.

### First US NOTES Multicenter Human Trial Announced

At the 4th International Conference on Natural Orifice Translumenal Endoscopic Surgery (NOTES), held recently in Boston, Massachusetts, the Natural Orifice Surgery Consortium for Assessment and Research (NOSCAR) announced the start of the first NOTES multicenter human trial in the United States later this year. This marks a new phase in NOTES development, that of human trials, as up until now, NOSCAR research efforts have focused on basic research. NOSCAR leader-

ship is currently finalizing the design for a prospective multicenter trial of NOTES cholecystectomy versus conventional laparoscopic cholecystectomy. NOSCAR will be granting funds to selected institutions that have already performed NOTES in human subjects under Institutional Review Board protocol to conduct this new trial, and approximately 200 patients are expected to be enrolled. Additional announcements regarding the participating institutions, study protocols, and start date of the studies will be announced. ACI, a Clinical Research Organization based in Pennsylvania, has been retained to provide data collection and report preparation services for the study.

#### In Brief

**Researchers of a prospective study found that antitumor necrosis factor therapy improved health-related quality of life in patients with Crohn's perineal fistulas at 12 months** and that this improvement was most pronounced in patients with clinical and magnetic resonance imaging-assessed healing. *Aliment Pharmacol Ther.* 2009 Jul 3. [Epub ahead of print].

**In a prospective study to assess the long-term outcomes of double-balloon enteroscopy performed for the evaluation of obscure gastrointestinal bleeding, up to 60% of patients reported no further bleeding 30 months after the procedure.** Patients with arteriovenous malformations or normal examinations to the depth of insertion were most likely to report recurrent hemorrhage. *Clin Gastroenterol Hepatol.* 2009;7:664-669.

**According to a retrospective review of 701 consecutive operative colorectal cancer cases from a hospital cancer registry, increased lymph node retrieval did not identify a greater number of patients with stage III colorectal cancer, nor did it increase the proportion of patients with positive lymph nodes with N2 disease.** The study data suggested that a harvest of at least 12 lymph nodes as a quality or performance measure appeared unfounded. *Arch Surg.* 2009;144:612-617.