

## Same-Day Bowel Preparation Ideal for Afternoon Colonoscopies

Same-day bowel preparation provides better cleansing and is preferred over a split-dose regimen for patients scheduled for an afternoon colonoscopy, according to results of a randomized, controlled study presented in abstract form by Dr Isabel Manzanillo-DeVore on October 9, 2018 at the American College of Gastroenterology (ACG) 2018 Annual Scientific Meeting in Philadelphia, Pennsylvania (Oral abstract 42).

A total of 262 patients at average risk for colon cancer who were scheduled for afternoon screening colonoscopy were randomized 1:1 to same-day bowel preparation or split-dose preparation by Dr Manzanillo-DeVore and colleagues. Patients in both groups were instructed to drink only clear liquids (ie, no purple or red dyes) and to avoid high-residue foods (eg, raw vegetables, popcorn, nuts) beginning at noon the day before the colonoscopy, which is the standard practice. In the same-day group, patients began bowel preparation at 5:30 am the day of the procedure and were told to finish a polyethylene glycol–electrolyte solution (PEG-ES; 4 L) at least 4 hours before their appointment. Patients in the split-dose group drank 2 L of the PEG-ES at 5:00 pm the day before the procedure and 2 L at 5:30 am the day of the procedure. Outcomes included the ability to consume, Boston Bowel Preparation Scale (BBPS) score, ease of consumption, and overall experience on a patient satisfaction survey.

Ratings overall were higher among the same-day group, with BBPS scores being significantly higher (8.05 vs 6.33, respectively;  $P < .001$ ). More patients in the same-day group (84.7%) stated that they would ask for the same preparation again vs those in the split-dose group (51%;  $P < .001$ ).

## Lactated Ringer Solution Associated With Lower Mortality Compared With Saline

Lactated Ringer (LR) solution is associated with lower mortality and decreased risk of systemic inflammatory response syndrome development than standard saline in patients with acute pancreatitis, according to results of a meta-analysis presented in abstract form by Dr Umair Iqbal on October 9, 2018 at the ACG 2018 Annual Scientific Meeting (Oral abstract 19). Early and aggressive fluid resuscitation is imperative in this population setting.

Dr Iqbal and colleagues conducted a systematic review and meta-analysis of 5 studies (3 randomized, controlled trials and 2 retrospective cohort studies)

comparing LR solution with saline for the management of acute pancreatitis. The studies included a combined total of 428 patients. The primary endpoint was the difference in mortality. The secondary endpoint was the development of systemic inflammatory response syndrome in 24 hours. Only 3 studies (127 patients) reported the secondary outcome at 24 hours. No significant differences in baseline characteristics existed between patients treated with the 2 solutions.

Lower mortality rates were noted among patients treated with LR solution than among patients treated with saline, although the difference was not significant (pooled odds ratio [OR], 0.61; 95% CI, 0.28-1.29;  $P = .20$ ). Patients who received LR solution, however, were significantly less likely to develop systemic inflammatory response syndrome at 24 hours (pooled OR, 0.38; 95% CI, 0.15-0.98;  $P = .05$ ).

Limitations of the analysis included an unclear definition of mortality, inconsistent reporting of the cause of death and the time between exposure to LR solution or saline and death, and small sample sizes among the studies. Larger randomized, controlled trials are suggested.

## Fecal Microbiota Transplantation and VSL#3 Effective for Ulcerative Colitis Treatment

Fecal microbiota transplantation and the probiotic VSL#3 effectively induce clinical remission and response in patients with ulcerative colitis, according to results of a meta-analysis presented in poster form on October 8, 2018 at the ACG 2018 Annual Scientific Meeting (Poster 1377).

Dr Muhammed Khaled Elfaituri and colleagues conducted a systematic review and meta-analysis of 16 randomized, controlled trials evaluating 3 different interventions: probiotics, fecal microbiota transplantation, and VSL#3. The primary outcomes were clinical remission, endoscopic remission, and clinical response. Overall, fecal microbiota transplantation induced clinical remission in 41.6% of patients compared with 19.4% in the placebo group (OR, 2.88;  $P < .001$ ). Clinical response was also higher among patients receiving fecal microbiota transplantation vs placebo (45.6% vs 35.3%; OR, 1.92;  $P = .024$ ). Clinical remission was induced in 60.0% of patients receiving VSL#3 compared with 38.8% of patients receiving placebo (OR, 2.72;  $P < .01$ ). Clinical and endoscopic remission outcomes were similar among patients receiving probiotics aside from VSL#3 (50.5% and 52.2%, respectively) compared with placebo (31.9%

and 46.2%, respectively). Fifty-nine percent of patients in the probiotic group vs 40.6% in the placebo group experienced clinical response (OR, 2.12;  $P < .01$ ).

Further research is needed due to the diversity of available probiotics.

### **US Food and Drug Administration Committee Approves Prucalopride for Chronic Idiopathic Constipation**

On October 18, 2018, the Gastrointestinal Drugs Advisory Committee of the US Food and Drug Administration (FDA) voted 10 to 0 to recommend the 5-hydroxytryptamine 4 (5-HT<sub>4</sub>) agonist prucalopride (Shire) in tablet form for the treatment of adult patients with chronic idiopathic constipation (CIC). The gastrointestinal prokinetic agent is currently the only 5-HT<sub>4</sub> agonist available in the United States for treatment of CIC.

The Committee voted after reviewing efficacy and safety data from 5 randomized, double-blind, placebo-controlled, phase 3 trials and 1 double-blind, placebo-controlled, phase 4 trial in patients with CIC spanning 4 continents. An integrated efficacy analysis of 2484 patients found that 27.8% had an average of at least 3 spontaneous complete bowel movements (SCBMs) per week during 12 weeks of treatment compared with placebo (13.2%; OR, 2.68; 95% CI, 2.16-3.33;  $P < .001$ ), meaning that those patients had sufficient response to therapy. Forty-seven percent of patients receiving prucalopride experienced a clinically meaningful improvement in bowel function compared with 29.9% of patients receiving placebo ( $P < .001$ ). Patients in the prucalopride group also experienced significant reductions in time to first SCBM and in the use of rescue medication for the mean number of tablets and mean days of use ( $P < .001$ ).

In an integrated safety analysis of 2552 patients, 63.3% of patients receiving prucalopride and 53.3% of patients receiving placebo experienced 1 or more treatment-emergent adverse event (TEAE), with abdominal pain, diarrhea, headache, and nausea occurring in at least 5% of the treatment group. Serious TEAEs were experienced by 1.6% and 2.4% of the treatment group and the placebo group, respectively; no patients died from TEAEs. Two suicides occurred in the treatment group but were not deemed related to the study drug. Among the

treatment group, 5.2% of patients permanently discontinued the study drug compared with 3.4% of patients in the placebo group.

The agent is approved in the European Union and in countries outside of Europe for chronic constipation, and remains an investigational compound in the United States. Its investigational new drug application was inactivated by the FDA on July 30, 2004 following concerns of carcinogenicity and genotoxicity. The FDA reactivated the application in September 2012.

### **Thermal Ablation of Mucosal Defect Margins Reduces Recurrence of Lesions Following Endoscopic Mucosal Resection**

Thermal ablation of endoscopically invisible microadenomas at the margins of the site of an endoscopic mucosal resection (EMR) following the endoscopic procedure significantly reduced lesion recurrence when compared with no additional treatment, according to results of a prospective, multicenter, randomized trial published online on October 5, 2018 ahead of print publication in *Gastroenterology*.

Dr Amir Klein and colleagues evaluated 390 patients with a total of 416 large ( $\geq 20$  mm) laterally spreading colonic lesions who were referred for EMR at 4 tertiary centers in Australia. Lesions were excised completely by EMR and then randomly assigned to either thermal ablation of the post-EMR mucosal defect margin ( $n=210$ ) or no additional treatment ( $n=206$ ). The 2 groups had similar patient, procedure, and lesion characteristics. After 5 to 6 months, surveillance colonoscopies were performed and included standardized photographic documentation and biopsies of the scar. The primary endpoint was the detection of lesion recurrence at first surveillance colonoscopy.

Lesion recurrence at first surveillance colonoscopy occurred in a significantly higher proportion of patients who received no additional treatment than in those who underwent thermal ablation of the post-EMR mucosal defect margin (37/176, 21.0% vs 10/192, 5.2%;  $P < .001$ ). The relative risk of recurrence in patients who received thermal ablation was 0.25 compared with patients who did not receive additional treatment (95% CI, 0.13-0.48). Adverse event rates were similar between the groups.