

## Lesion Detection Rate and Patient Positioning During Colonoscopy

The miss rate for adenomas during colonoscopy may partly be due to poor visualization in the colon. Sequential position changes during colonoscopy may improve luminal distention and adenoma detection. As reported online on October 14th ahead of print publication in *Gastrointestinal Endoscopy*, Dr. James East, of St. Mark's Hospital and Imperial College London, United Kingdom, and colleagues conducted a randomized crossover clinical trial on patient positioning and lesion detection rate during colonoscopy withdrawal. The team recruited 130 patients scheduled for routine colonoscopy who underwent the procedure twice: once in the usual left lateral position, and again with directed position changes. The procedures were performed in random order, with all patients receiving antispasmodic medication and optional intravenous sedation. The investigators reported an 11% absolute increase in the number of patients who changed positions and had at least 1 adenoma detected in the transverse colon, splenic flexure, and descending colon combined, as opposed to patients in the traditional left lateral position ( $P=.01$ ). Polyp detection yielded similar results, with at least 1 polyp detected in 52% of patients who changed positions compared to 34% of patients who were examined in the left lateral position only ( $P<.001$ ).

## Ribavirin and Peginterferon Versus Peginterferon and Placebo for Children and Adolescents With Chronic Hepatitis C

In a randomized, controlled trial of children aged 5–17 years with chronic hepatitis C virus (HCV), Dr. Kathleen Schwarz, of Johns Hopkins Children Center in Baltimore, Maryland, and colleagues investigated the combination of peginterferon alfa-2a and ribavirin, versus peginterferon alfa-2a and placebo. The aim of the study was to see if ribavirin increases efficacy of peginterferon alfa-2a in children, as it has been shown to do in randomized trials of HCV-infected adults. Study results were released online on October 28th ahead of print publication in *Gastroenterology*. Children from 11 university medical centers who were HCV RNA-positive were randomly assigned to treatment with either peginterferon alfa-2a (180  $\mu\text{g}/1.73 \text{ m}^2$  body surface area, subcutaneously each week;  $n=59$ ) and ribavirin (15 mg/kg orally in 2 doses daily) or peginterferon alfa-2a and placebo for 48 weeks ( $n=55$ ). Sustained virologic response (SVR, lack of detectable HCV RNA

$\geq 24$  weeks after stopping therapy) was the primary endpoint. SVR was achieved in 53% of the peginterferon alfa-2a and ribavirin arm versus 21% of the peginterferon alfa-2a and placebo arm ( $P<.001$ ). In children with genotype 1 HCV, early virologic response ( $>2 \log_{10}$  IU decrease in HCV RNA at 12 weeks) had a negative predictive value of 0.89, suggesting that 24 weeks of therapy before terminating treatment might be beneficial. Dose modification occurred in 40% of children due to side effects, particularly neutropenia.

## Helicobacter pylori Infection and Its Role in Salmonella typhimurium-induced Colitis

*Helicobacter pylori* infection is associated with a reduced risk of inflammatory bowel disease and other chronic autoimmune diseases. Chronic *Salmonella typhimurium* infection in mice has been shown to induce colitis similar to Crohn's disease, characterized by inflammation that progresses to fibrosis. Dr. Peter Higgins, of the University of Michigan, Ann Arbor, and colleagues conducted a study to evaluate whether prior *H. pylori* infection acts at a distance to modulate the *S. typhimurium*-induced colitis immune response. In the study, mice were first infected with the mouse-adapted *H. pylori* strain (SS1) and allowed to develop immune tolerance for 1 month before being infected with *S. typhimurium*. Gross pathology, cytokine response, histopathology, and development of fibrosis in the cecum were indicators of the effect of *H. pylori* on colitis. Systemic immune response and gastritis were measured in response to infection. Study results showed suppression of the Th17 response to *S. typhimurium* infection in the mouse cecum due to *H. pylori* infection, but no changes in Th2 or T-regulatory response or fibrosis development. Interleukin-10 was induced in the mesenteric lymph nodes by *H. pylori* infection, which might suggest an extragastric mechanism for immunomodulation. Inflammation in both the cecum and stomach was reduced by *H. pylori/S. typhimurium* co-infection. This study, released online on October 25th ahead of print publication in *Inflammatory Bowel Diseases*, provided the first evidence that gastric *H. pylori* infection changes the lower gastrointestinal tract's immunologic environment and decreased the severity of *S. typhimurium*-induced colitis. Dr. Higgins stated, "It would be reasonable for researchers to look at whether *H. pylori* infection is associated with reduced severity of other gut infections like cholera or *Clostridium difficile*. Many more studies are needed, however, to see if *H. pylori* could actually prevent inflammatory bowel disease."