

Infliximab and Recurrence of Postoperative Crohn's Disease

Led by Miguel Regueiro, MD, of the University of Pittsburgh School of Medicine in Pittsburgh, Pennsylvania, researchers conducted a prospective study to determine whether the use of infliximab following surgical intestinal resection for Crohn's disease decreases the incidence of postoperative Crohn's disease recurrence. The study, the results of which were published in the February issue of *Gastroenterology*, consisted of 24 patients with Crohn's disease who had undergone ileocolonic resection and were randomly assigned to intravenous infliximab (5 mg/kg) administered within 4 weeks of surgery until 1 year or placebo. Endoscopic recurrence at 1 year was the primary endpoint of the study, whereas clinical recurrence, clinical remission, and histologic recurrence were the secondary endpoints.

The researchers found the endoscopic recurrence rate at 1 year to be significantly lower in patients receiving infliximab (1 of 11 patients; 9.1%) compared to those receiving placebo (11 of 13 patients; 84.6%; $P=.0006$). The proportion of patients in clinical remission was higher, although not significantly, in patients receiving infliximab (8 of 10; 80.0%) compared to those receiving placebo (7 of 13; 53.8%; $P=.38$). As for histologic recurrence, this rate was significantly lower at 1 year in patients receiving infliximab (3 of 11 patients; 27.3%) compared to those receiving placebo (11 of 13 patients; 84.6%; $P=.01$). Adverse events were similar in both groups, and none were reported during the period immediately following surgery. Dr. Regueiro noted that the study "provides strong evidence that infliximab is effective at preventing endoscopic, clinical, and histologic postoperative recurrence of Crohn's disease and provides a rationale for aggressive postoperative chemoprevention with biologic therapy."

Alcoholic and Sociodemographic Risk Factors for Patients With Barrett Esophagus

According to the March issue of *Gastroenterology*, researchers at Kaiser Permanente in Oakland, California, conducted a population-based study to assess whether

alcohol use, alcohol type, sociodemographic profiles, and other lifestyle factors were risk factors for Barrett esophagus. The patient population consisted of men and women who were members of Kaiser Permanente in Northern California and who had been recently diagnosed with Barrett esophagus between 2002 and 2005 ($n=320$). These patients were matched to individuals with gastroesophageal reflux disease (GERD; $n=316$) and to population controls ($n=317$). Validated questionnaires were administered during in-person interviews, and the researchers used multivariate unconditional logistic regression for their analysis.

The researchers found that total alcohol use did not have a significant association with the risk of Barrett esophagus. However, when different types of alcohol were analyzed, an inverse association was noted for people who drank wine compared to people who did not drink alcohol (≥ 7 drinks of wine per week vs 0: odds ratio [OR], 0.44; 95% confidence interval [CI], 0.20–0.99; multivariate analysis). Population controls who preferred wine were more likely to be college graduates and regular users of vitamins than those who preferred beer or liquor; however, adjusting for these factors or GERD symptoms did not eliminate the inverse relationship between wine drinking and Barrett esophagus. Risk of Barrett esophagus also had a significant inverse relationship with education. The authors acknowledged that further research on this topic is warranted.

Symptoms and Dietary Patterns in Patients With Functional Dyspepsia

Due to the suspected, but unsubstantiated, relationship between functional dyspepsia symptoms and food ingestion, researchers led by Christine Feinle-Bisset, MD, of the Royal Adelaide Hospital in Adelaide, Australia, recently conducted a prospective trial examining the association between functional dyspepsia symptoms and dietary factors. The results of this study were reported in the March issue of *Clinical Gastroenterology & Hepatology*. The patient population consisted of 20 patients with functional dyspepsia (17 women) and 21 healthy control patients (18 women), all of whom kept detailed diet diaries describing all of their foods and drinks and times

of consumption for 7 days. During this time, they also recorded the occurrence, timing, and severity of any dyspeptic symptoms, including nausea, discomfort, fullness, bloating, upper abdominal pain, or epigastric pain. The researchers analyzed the data from these diaries to determine the number of meals, light meals, snacks, and drinks as well as energy intake and macronutrient distribution of the study subjects.

The researchers noted that patients with functional dyspepsia ate fewer meals ($P<.01$) and had lower total energy intake ($P=.1$) and fat intake ($P=.1$) than the healthy control subjects. Patients with functional dyspepsia experienced symptoms that were modest in severity (a score of 5 out of 10, [range, 3–8]) and that occurred within 31 minutes (range, 8–64 min) of eating. The symptom of fullness had a direct association to the amount of fat intake ($z, 1.91; P<.05$) and overall energy intake ($z, 2.12; P<.05$) and was inversely related to the amount of carbohydrate intake ($z, -1.9; P=.05$). The symptom of bloating was also associated with fat intake ($z, 1.68; P=.09$). No significant relationship was found between symptom severity and any of the dietary variables. The authors concluded that functional dyspepsia symptoms might improve with smaller meals and reduced fat intake.

Thiopurines and Colorectal Cancer Risk in Patients With Inflammatory Bowel Disease

At the 4th Congress of the European Crohn's and Colitis Organisation (ECCO-IBD), recently held in Hamburg, Germany, Laurent Beaugerie, MD, of the Saint-Antoine Hospital in Paris, France, and colleagues presented results of a prospective cohort study evaluating the relationship between thiopurine use and colorectal cancer risk. Noting the lack of data in the literature on this relationship, the researchers conducted the Cancers et Sur-Risque Associé aux Maladies Inflammatoires Chroniques Intestinales en France (CESAME) study, which was comprised of a total of 19,486 patients with inflammatory bowel disease treated by centers across France between May 2004 and May 2005. Of the overall cohort, 60% had Crohn's disease, whereas 40% had ulcerative colitis or unclassified inflammatory bowel disease. Prior to the initiation of the trial, 30% of patients were receiving thiopurine therapy.

The authors noted that 36 patients (0.2%) developed colorectal cancer and 21 patients (0.1%) developed high-grade dysplasia during the follow-up period. When analyzing only patients with long-standing and extensive colitis (>10 years duration and >50% cumulative colonic extent; $n=2,841$), 21 patients (0.7%) developed colorectal cancer and 8 patients (0.3%) developed high-

grade dysplasia. According to multivariate hazard ratio (HR) analysis, independent risk factors for developing advanced colorectal cancer included duration of the disease, extent of colitis, and male gender. There was also a trend for thiopurine therapy providing a protective effect (HR: 0.622; 95% CI, 0.30–1.26). The adjusted colorectal cancer risk was similar in patients with Crohn's colitis and ulcerative colitis (HR: 1.0; 95% CI, 0.5–2.2). The researchers concluded that patients who have inflammatory bowel disease and are taking thiopurines have a 3-fold decrease in the risk of developing colorectal advanced neoplasias.

Azathioprine and Surgery in Patients With Crohn's Disease

At the recent ECCO-IBD meeting, held in Hamburg, Germany, researchers at the State Health Centre in Budapest, Hungary, presented results of a retrospective study evaluating the effects of smoking and azathioprine or biologic treatment on the need for surgery and reoperation. The patient population was comprised of 252 patients with Crohn's disease and 252 patients with ulcerative colitis; among Crohn's disease patients, 47.1% were smokers, whereas among ulcerative colitis patients, 13.2% were smokers.

The authors found that, among Crohn's disease patients, at least 1 bowel resection was required in 48% of patients, whereas, among patients with ulcerative colitis, at least 1 bowel resection was required in 16% of patients. Azathioprine or azathioprine plus biologic treatment prior to surgery was related to a risk for surgery (OR, 0.19 and 0.227; $P<.0001$) as was smoking (OR, 1.79; $P=.018$). Five percent of patients with ulcerative colitis underwent colectomy. In these patients, disease location, not smoking status, was associated with an increased risk for surgery ($P=.001$). The harmful effect of smoking was seen most in women ($P=.006$) and in patients with stenosing disease. The authors concluded that treatment with azathioprine or biologic therapy decreased the risk of needing surgery ($P<.0001$ for both) but not reoperation in both smokers and nonsmokers with Crohn's disease.

Liver Transplantation and Splenic Artery Occlusion in Patients With Small-for-Size Syndrome

According to the February issue of *Liver Transplantation*, researchers at the University of Minnesota in Minneapolis, Minnesota, sought to evaluate possible

treatments for small-for-size syndrome of all adult partial liver transplant recipients who were operated on at their center between 1997 and 2007. This retrospective database analysis included 100 liver transplant recipients, of whom 7 developed small-for-size syndrome. Among these 7 patients, 5 underwent additional abdominal surgery within 2 weeks of their transplant in order to exclude any complications of the transplant itself and then to undergo splenic artery ligation. Radiologic treatment via splenic artery coiling was used for the remaining 2 patients. The authors noted that 6 of the 7 patients showed a good response to splenic artery occlusion, as they experienced improvements of their liver function tests over the subsequent 1–2 weeks. None of the patients developed postoperative spleen infections or died; after an average 3-year follow-up period, all of the patients were doing well. Only 1 of the 2 radiologically-treated patients required a new liver transplant. Although the authors noted that the goal should be to prevent small-for-size syndrome, they pointed out that their study indicated that occlusion of the splenic artery is reasonable for treating established small-for-size syndrome.

In Brief

A prospective study of *Helicobacter pylori* treatment found that by adopting first- and second-line regimens, as proposed by the Maastricht III consensus, and a third-line levofloxacin-based empirical regimen, high cumulative *H. pylori* eradication rates can be achieved. The researchers thus concluded that a substantial number of cultures to determine sensitivity to antibiotics can be avoided with beneficial consequences concerning cost. (*Am J Gastroenterol.* 2009;104:21-25.)

A meta-analysis of 52 studies through June 2008 confirms previous studies reporting an inverse association between physical activity and colon cancer in both men and women. (*Br J Cancer.* 2009; 100:611-616.)

According to the results of a prospective study, simple biochemical tests (aspartate aminotransferase to platelet ratio index, Forns fibrosis index, and FIB-4 tests, alone and in combination) accurately predicted liver fibrosis in more than half of HIV/hepatitis C virus co-infected patients. The absence and presence of liver fibrosis are predicted fairly using the lowest and highest cut-off levels, respectively. (*Clin Gastroenterol Hepatol.* 2009;7:339-345.)