

## Infliximab and the Colectomy Rate in the Treatment of Ulcerative Colitis

The Active Ulcerative Colitis Trial (ACT)-1 and ACT-2 assessed infliximab induction and maintenance therapy in moderate-to-severe active ulcerative colitis in 728 patients who received placebo or intravenous infliximab (5 or 10 mg/kg) at Weeks 0, 2, and 6 and subsequently every 8 weeks through Week 46 (ACT-1) or 22 (ACT-2). Researchers from the Mayo Clinic in Rochester, Minnesota, along with associates worldwide, then compiled data from ACT-1 and ACT-2 (which were randomized, double-blinded, placebo-controlled trials), as well as from associated data sources regarding colectomy, hospitalization, and surgeries/procedures through 54 weeks after the first infusion. The researchers utilized the Kaplan-Meier product-limit method to estimate the cumulative incidence of colectomy and the log-rank test to compare the combined infliximab arm and placebo. The results of this analysis were published in the October issue of *Gastroenterology*.

The researchers found that 87% (630/728) of patients underwent complete follow-up, whereas 13% (98/728) were followed for a median of 6.2 months. Through 54 weeks, the cumulative incidence of colectomy was 10% in the infliximab arm and 17% in the placebo arm ( $P=.02$ ), which translated to a decline of 7% in the absolute risk. Compared to the placebo arm, there were fewer ulcerative colitis–related hospitalizations and surgeries/procedures per 100 patient-years in the infliximab arm (40 vs 20;  $P=.003$  and 34 vs 21;  $P=.03$ ), respectively. Serious adverse events in the infliximab arm were comprised of serious infections, tuberculosis, histoplasmosis, listeriosis, and malignancy.

## New Metoclopramide Hydrochloride Formulation Granted Approval for Diabetic Gastroparesis and Symptomatic GERD

The US Food and Drug Administration recently granted marketing approval for the use of metoclopramide hydrochloride (Metozolv ODT, Salix) 5-mg and 10-mg orally disintegrating tablets in adults for the treatment of acute and recurrent diabetic gastroparesis or the short-term treatment (4–12 weeks) of symptomatic documented gastroesophageal reflux disease that does not respond to conventional therapy. Researchers noted that this

formulation may help patients who have difficulty swallowing, who need a portable method for medication, or who may not have water readily available when taking medication. In clinical studies, the most common adverse events ( $\geq 2\%$  occurrence) included headache, nausea, fatigue, somnolence, and vomiting. Treatment with metoclopramide hydrochloride is not recommended for longer than 12 weeks. Researchers noted that the medication can cause tardive dyskinesia and that metoclopramide hydrochloride is contraindicated in patients with intestinal obstruction, hemorrhage, or perforation; pheochromocytoma; known sensitivity or intolerance to metoclopramide; epilepsy; or those who are taking concomitant medications with extrapyramidal reactions.

## Mucosal Healing and Maintenance Therapy for Crohn's Disease

According to the September issue of *Inflammatory Bowel Diseases*, researchers at the University Hospital Gasthuisberg in Leuven, Belgium evaluated mucosal healing during long-term infliximab therapy in 214 Crohn's disease patients. Of these, 183 (85.5%) responded to induction therapy and 31 (14.5%) were primary nonresponders. The patients underwent lower gastrointestinal endoscopy within a median of 0.7 months (interquartile range [IQR], 0.1–6.8) before the first infliximab dose, as well as after a median of 6.7 months (IQR, 1.4–24.6) after starting infliximab.

The researchers noted mucosal healing in 67.8% of the 183 initial responders ( $n=124$ ). Of these, 83 patients experienced complete healing (45.4%) and 41 had only partial healing (22.4%). Scheduled infliximab therapy was associated more frequently with mucosal healing (76.9% mucosal healing rate) than episodic therapy (61.0% mucosal healing rate;  $P=.0222$ ; odds ratio [OR], 2.14; 95% confidence interval [CI], 1.11–4.12). Concomitant therapy with corticosteroids negatively affected mucosal healing (37.9% in patients with corticosteroids vs 63.2% in patients without corticosteroids;  $P=.021$ ; OR, 0.36; 95% CI, 0.16–0.80). Mucosal healing was related to a significantly decreased need for major abdominal surgery during long-term follow-up (14.1% of patients with mucosal healing required major abdominal surgery vs 38.4% of patients without mucosal healing;  $P<.0001$ ).

## Mucosal Esophageal Adenocarcinoma in Barrett Esophagus

According to the September issue of *Gastroenterology*, researchers at the Mayo Clinic in Rochester, Minnesota conducted a study to compare the long-term outcomes of mucosal esophageal adenocarcinoma patients treated endoscopically and surgically. The patient population consisted of individuals treated for mucosal esophageal adenocarcinoma between 1998 and 2007, who were divided into the endoscopy treatment arm (the ENDO group) and the surgical treatment arm (the SURG group). The researchers used Kaplan-Meier curves and Cox proportional hazard ratios to conduct their statistical analysis.

The study evaluated 178 patients (132, or 74%, in the ENDO arm and 46, or 26%, in the SURG arm) for a mean follow-up of 64 months (standard error of the mean, 4.8 months in the SURG arm) and 43 months (standard error of the mean, 2.8 months in the ENDO arm). Cumulative mortality in the ENDO arm (17%) was found to be similar to that of the SURG arm (20%;  $P=.75$ ), as was overall survival (via the Kaplan-Meier method). On multivariable analysis, treatment modality was not a significant predictor of survival. In the ENDO arm, recurrent carcinoma was found in 12% of patients, all of whom were successfully re-treated without affecting overall survival.

## Donor and Recipient Age and Liver Transplantation

Researchers from Toronto General Hospital in Toronto, Canada conducted a study to evaluate the effects of donor and recipient age in transplantation/ischemia-reperfusion injury (TIRI) and short- and long-term graft and patient survival. The study, which was published in the October issue of *Liver Transplantation*, was comprised of 822 patients who received deceased donor livers, of which 197 donors were at least 60 years old. The researchers assessed markers of reperfusion injury, graft function, clinical outcomes, and short- and long-term graft and patient survival. They found that increased donor age was related to more severe TIRI and decreased 3- and 5-year graft survival (73% vs 85% and 72% vs 81%;  $P<.001$ ) and

patient survival (77% vs 88% and 77% vs 82%;  $P<.003$ ). The only independent risk factors for graft and patient survival in patients receiving an older graft were hepatitis C virus (HCV) infection and recipient age. Among the HCV-positive patients (297 in total), patients at least 50 years of age who received an older graft as opposed to a younger graft experienced significantly reduced 3- and 5-year graft survival (68% vs 83% and 64% vs 83%;  $P<.009$ ). On the other hand, HCV-positive patients less than 50 years of age experienced similar 3- and 5-year graft survival regardless of whether they were given a young graft or an old graft (81% vs 82% and 81% vs 82%;  $P=.9$ ).

### In Brief

**Researchers of an observational study found that higher baseline neutrophil count and decline of neutrophil count during the treatment of HCV were associated with achieving sustained virologic response.** They also noted that these findings could have important implications for the monitoring and management of HCV treatment with peginterferon if confirmed in other studies. *Dig Dis Sci.* 2009 Sep 16. [Epub ahead of print].

**According to a prospective feasibility study, endoscopic ultrasound-guided biliary drainage with one-step placement of a fully covered self-expandable metal stent may be feasible, safe, and effective** as an alternative to percutaneous transhepatic biliary drainage in cases of malignant biliary obstruction when endoscopic retrograde cholangiopancreatography is unsuccessful. However, prospective randomized trials of these stents are needed. *Am J Gastroenterol.* 2009; 104:2168-2174.

**In a retrospective case note review, inflammatory bowel disease-focused counseling improved not only psychological well-being, but also the course of inflammatory bowel disease in individuals with psychosocial stress.** *Inflamm Bowel Dis.* 2009 Sep 22. [Epub ahead of print].