Infectious Gastroenteritis May Precipitate IBD

BY LEANNE SULLIVAN
Associate Editor

An episode of infectious gastroenteritis might be a factor in the onset of inflammatory bowel disease.

Dr. Chad K. Porter and his colleagues conducted a nested case-control study to determine whether the risk of IBD was higher in patients with a documented episode of infectious gastroenteritis (IGE). Using claims data from the Defense Medical Surveillance System (the main database for U.S. military medical data), the researchers identified 3,019 active-duty military personnel with IBD who served between 1999 and 2006.

Each patient was matched for time, sex, and age with four controls from the same population who did not have IBD. The mean age for both patients and controls was 34 years, and about 82% of both groups were male. Of the IBD patients, 72% were white, compared with 64% of the controls.

To reduce the possibility that the medical visit for IGE was actually the first presentation of IBD, the IGE must have occurred 6 months prior to IBD diagnosis, based on the average time from IBD presentation to diagnosis in 266 cases selected from the data set at random. Also excluded were patients with an irritable bowel syndrome (IBS) diagnosis within 6 months before the IGE visit.

Of all IBD patients, 1,720 had a diagnosis of ulcerative colitis and 1,037 had Crohn's disease. A diagnosis of pseudopolyposis colon was considered to be IBD but was not included in the subanalyses. Patients with both ulcerative colitis and Crohn's were included in the overall analysis but not the subanalyses.

The authors used univariate and multivariate conditional logistic regression models to evaluate the relationship between IGE and all IBD, as well as between IGE and ulcerative colitis and Crohn's disease separately.

"A previous diagnosis of infectious gastroenteritis was significantly associated with an increased odds of inflammatory bowel disease" (odds ratio, 1.40), the authors wrote (Clin. Gastroenterol. Hepatol. 2008 September [doi:10.1053/j.gastro.2008.05.081]). Patients who had experienced IGE were slightly more likely to develop Crohn's disease (OR, 1.54) than ulcerative colitis (OR, 1.36).

In addition, patients with a prior diagnosis of IBS had a fivefold increased risk of IBD, compared with those who were never diagnosed with IBS. This association "could be due to IBS-like symptoms of undiagnosed [Crohn's disease], or [because] IBS actually predisposes individuals to the development of IBD," they wrote.

When the analysis was restricted to patients without a prior IBS diagnosis, previous IGE remained significantly associated with Crohn's disease (OR, 1.48) and ulcerative colitis (OR, 1.39). The slight difference in risk between ulcerative colitis and Crohn's patients could be due to genetic predisposition and immunopathologic triggers, Dr. Porter of the Naval Medical Research Center, Silver Spring, Md., and his colleagues said.

Race was also linked with increased risk of developing IBD: Whites had a significantly higher risk (OR, 1.44), compared with blacks, Hispanics, Asians, and others.

The authors concluded that "the risk of IBD was greater in those with a prior episode of infectious diarrhea." They suggested that "among genetically susceptible individuals, IBD may arise subsequent to an enteric infection due to an alteration of the gut epithelial barrier resulting in exposure to commensal and/or pathogenic microflora and disturbed adaptive and innate immune responses leading to disease."

One limitation of the study was that patients with undiagnosed IBD may be more likely to access medical care for IGE, perhaps because IGE is more severe in these patients as a result of pathophysiological changes or insufficient immune response, Dr. Porter and his colleagues said.

This study is in concordance with previous research indicating that infectious gastroenteritis might contribute to an initiation of IBD among susceptible individuals through disruption of normal gut homeostasis, they wrote.

None of the authors had a financial conflict of interest regarding their study. ■

Antibiotic Cut Peritonitis In Liver Disease Patients

BY ALICIA AULT
Associate Editor, Practice Trends

SAN DIEGO — Antibiotic prophylaxis seems to prevent spontaneous bacterial peritonitis in advanced liver disease and also reduces mortality, especially in the short term, according to a report at the annual Digestive Disease Week.

Spontaneous bacterial peritonitis (SBP) develops in 10%-30% of patients with cirrhosis, and the mortality rate is 30%-50%, said Dr. Sammy Saab of the University of California, Los Angeles. The risk of recurrence is as high as 70% in 1 year, he said.

Studies of the effect of antibiotic prophylaxis on prevention and mortality have been inconclusive, Dr. Saab and his colleagues noted. Their aim was to take a broader look at the studies to better assess the effect of prophylaxis.

The researchers conducted a literature search, reviewing the Cochrane Hepato-Biliary Group Controlled Trials Register, the Cochrane Central Register of Controlled Trials, and Medline. They also reviewed citations in the relevant articles and abstracts from 2 decades of national meetings.

They included randomized, controlled clinical trials that compared prophylaxis with placebo or no therapy in patients with cirrhosis and ascites. In all, 65 studies were identified, but only 8 matched the inclusion criteria. The studies included 324 patients who received prophylaxis and 323 patients who were given a placebo or no intervention. In most of the studies, quinolones were used.

Prophylactic therapy reduced the risk of SBP (odds ratio, 0.61). Mortality was also reduced (OR, 0.55).

More specifically, mortality was decreased by 72% during the first 3 months. The mortality rate was 6.2% at 3 months in patients who received treatment, compared with 22% in the placebo arm. At 12 months, mortality was about 20% for those who received treatment, compared with 29% for those receiving placebo.

The overall incidence of infections was also reduced, with a relative risk of 0.32 for treated patients. Only 6.2% of patients in the treated group had infections of any type, compared with 22% of those in the placebo group.

Dr. Saab noted that the study had many limitations. A lack of complete data means that there could be undetected biases. The studies all focused on outpatients, so the authors can't draw any conclusions about inpatients and intravenous antibiotic therapy. Because most of the studies involved quinolones, the preferred antibiotic agent was not revealed. Also, bacterial resistance could be an issue with long-term therapy, but this was not addressed in the studies reviewed.

However, the data do show that oral antibiotics improve outcomes in patients with cirrhosis and ascites, Dr. Saab noted. ■

Antidepressants Show Promise For Irritable Bowel Syndrome

BY LISA ZAMOSKY
Contributing Writer

SAN DIEGO — There is a strong rationale as well as some evidence supporting the use of tricyclic antidepressants and selective serotonin reuptake inhibitors for the treatment of irritable bowel syndrome, Dr. Lin Chang said at the annual Digestive Disease Week.

Dr. Chang, a gastroenterologist with the Center for Neurovisceral Sciences and Women's Health at the University of California, Los Angeles' division of digestive diseases, discussed the theoretical basis and the available research data supporting the use of selective serotonin reuptake inhibitors and tricyclic antidepressants (TCAs) for treating irritable bowel syndrome.

First, most IBS patients seen in a referral practice—as many as 60%—have some type of psychological disturbance, such as depression, anxiety, personality difficulties, or life stress.

Second, one of the key mechanisms of IBS involves alterations in the brain-gut interaction. As a result, TCAs and SSRIs may have the ability to change visceral sensitivity and motor activity, or both. Finally, both of these classes of medication appear to help regulate pain.

Dr. Chang discussed one of the largest studies on TCAs for the treatment of IBS, in which the investigators evaluated the efficacy of the TCA desipramine in a placebo-controlled 12-week study. Patients had moderate to severe functional bowel disorders and most met the criteria for IBS. The researchers started patients at 50 mg of desipramine, moving them up to 100 mg and then 150 mg during the course of the study (Gastroenterology 2003;125:19-31).

In the IBS patients, 62.5% of those on desipramine had improvement of their symptoms, compared with 37.5% of those on placebo. Only patients who completed treatment were included.

Most patients with IBS have chronic functional abdominal pain which is very difficult to treat, according to Dr. Chang. "Tricyclics can be beneficial in IBS," she concluded, stating that because of their anticholinergic effects, TCAs have been shown to improve IBS symptoms.

Although the desipramine study demonstrated a benefit, it used a high dose of TCAs at the outset, something that is difficult to do in practice, said Dr. Chang. "IBS patients have a lot of drug sensitivity, so I start at a lower dose. I tell them that they may not see an effect [right away] but that they may want to start slower and titrate it up. The slower you go, the fewer side effects you'll have."

Dr. Chang discussed two studies that demonstrated the efficacy of SSRIs in treating IBS. In one, investigators compared paroxetine with psychotherapy and usual medical treatment by a gastroenterologist. They found that both paroxetine and psychotherapy reduced pain scores and improved health-related quality of life compared with usual medical treatment. This study was the first to show that SSRIs are an effective treatment for functional gastrointestinal disorders (Gastroenterology 2003;124:303-17).

In the other study, researchers conducted a crossover trial on IBS patients, comparing 6 weeks of treatment with citalopram (3 weeks at 20 mg, 3 weeks at 40 mg) with placebo. After 3 and 6 weeks of treatment, there was significant improvement in the citalopram group with respect to abdominal pain, bloating, the impact of symptoms on daily life, and overall well-being, though the impact on stool pattern was moderate (Gut 2006;55:1095-103).

Dr. Chang acknowledged a lack of substantial literature supporting the use of TCAs and SSRIs. However, she stated that when other medications used for IBS have not been effective, it's important to try something else in clinical practice, and that these medications seem to work. ■