Contrast Medium Eased Small Bowel Blockages

BY KATE JOHNSON
Montreal Bureau

MONTREAL — For patients with adhesive small bowel obstruction, a water-soluble contrast medium produces significantly better outcomes than conservative treatment, according to a study presented at a meeting sponsored by the International Society of Surgery.

"Gastrografin [meglumine diatrizoate] has been shown to shift fluid, dilute intestinal contents, and decrease edema in the intestinal wall, facilitating motility," said Dr. Salomone Di Saverio of the emergency surgery unit at S. Orsola-Malpighi University Hospital in Bologna, Italy.

The reported operative rate for adhesive small bowel obstruction (ASBO) ranges from 27% to 42%, said Dr. Di Saverio. Although emergency surgery is mandatory in the case of total occlusion or when strangulation is suspected, partial occlusion is an indication for conservative treatment consisting of an NPO (nil per os) diet, nasogastric tube suction, and intravenous fluid resuscitation with the correction of electrolyte imbalance, he said in an interview.

In a multicenter, prospective study, Dr. Di Saverio compared conservative treatment to Gastrografin (GG) treatment in 76 patients with ASBO. Half of the patients were randomized to each arm of the study. The mean age of the patients was 68 years in the conservative treatment group, and 64 years in the GG group.

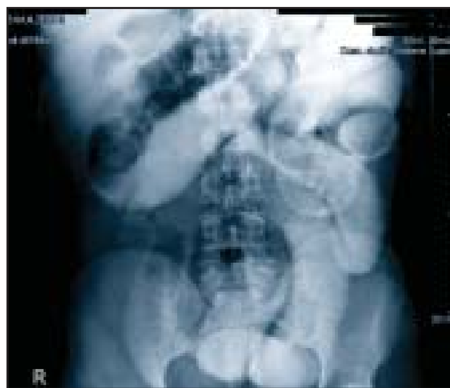
All patients were evaluated radiologically within 36 hours of treatment initiation. Patients in the GG group who had no evidence of GG in their bowel at 36 hours were considered to have a full obstruction and underwent emergency laparotomy, whereas patients with GG in the bowel but persistent symptoms at 36 hours were considered to have partial obstruction and were switched to conservative treatment. Patients in the conservative treatment group who had persistent obstruction at 36 hours were continued on conservative therapy for an additional 36 hours and then reevaluated.

A total of 31 patients in the GG group (82%) had resolution of their obstruction in a mean time of 6.5 hours, whereas the remaining 7 patients (18%) ultimately underwent surgery. One patient needed bowel resection for strangulation, said Dr. Di Saverio. In contrast, only 21 patients (55%) in the conservative treatment group responded to initial conservative therapy, and the remaining 17 (45%) needed surgery, including 2 patients who had bowel resections for strangulation.

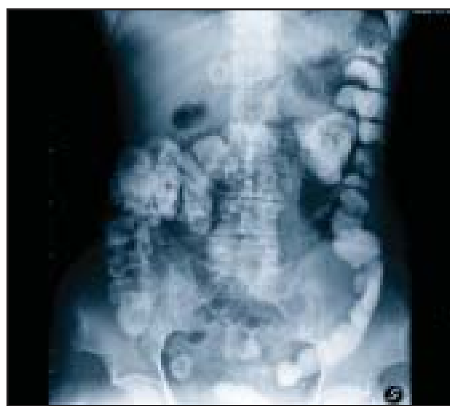
The significant difference in surgery rate (18% in the GG group vs. 45% in the conservative treatment group) was mirrored in the difference in time to symptom resolution (6.5 hours vs. 43 hours, respectively), and the length of hospital stay (4.6 days vs. 7.8 days).

Complications such as bowel strangulation and resection were higher in the conservative treatment group (5% vs. 2.5%), but this difference was not significant, said Dr. Di Saverio. During a mean follow-up period of 20 months, there was no significant difference in relapse rate.

Dr. Di Saverio declared no conflict of interest with regard to Gastrografin. ■



Gastrografin is shown here in a patient with complete bowel obstruction.



This ultrasound of the same patient shows the resolved bowel obstruction.

PHOTOS COURTESY DR. SALOMONE DI SAVERIO

Diagnostic Criteria Devised for Adult Autoimmune Enteropathy

BY TIMOTHY F. KIRN
Sacramento Bureau

Five criteria for diagnosing autoimmune enteropathy are now available thanks to a compilation of 15 patients at the Mayo Clinic, which has more than doubled the number of cases in the published literature.

The researchers found that only about half of the patients had histology results that fit the typical pattern previously reported, but 80% had a predisposition to autoimmune disease, as indicated by their history or levels of circulating antibodies.

Based on the cohort, the investigators also proposed criteria that could be used for definitive diagnosis.

The first reported case of autoimmune enteropathy was that of a child in 1982, said Dr. Salma Akram, of the division of gastroenterology and hepatology at the Mayo Clinic, Rochester, Minn. More recently, a total of 11 adult-onset cases have been reported in the literature.

The Mayo cases were all patients who had protracted diarrhea leading to weight loss and malnutrition. In 13 of the 15 cases, the patients' physicians ruled out celiac disease because the patient did not respond to a gluten-free diet and did not have an HLA genotype indicative of celiac disease susceptibility.

The other two cases fulfilled diagnostic criteria for refractory sprue. However, those 2 patients were among the 13 who tested positive for antienterocyte and/or antigoblet cell antibodies; a total of 14 of the 15 patients received such testing.

The median length of time between the onset of symptoms and diagnosis was 1.5 years. Abdominal CT was unremarkable in the cohort, except for a finding of prominent mesenteric lymph nodes in six of the patients.

Dr. Akram and colleagues found that only eight patients had small-bowel biopsy histology with the features that are considered characteristic of autoimmune enteropathy—features such as minimal intraepithelial lymphocytes and dense lamina propria inflammation.

The other seven individuals had spruelike histology, and it may be that the two conditions can coexist, the investigators suggested. This theory was bolstered by the finding that five of the seven patients had elevated IgA tissue transglutaminase antibodies.

Based on the Mayo cohort, the authors suggested that the following five criteria should be considered for establishing the diagnosis of adult autoimmune enteropathy, with the first four criteria being absolutely necessary for reaching a definitive diagnosis:

- Adult-onset chronic diarrhea lasting longer than 6 weeks in duration.
- Malabsorption.
- Specific small-bowel histology of partial/complete villous blunting, deep crypt lymphocytosis, increased crypt apoptotic bodies, and minimal intraepithelial lymphocytosis.
- Exclusion of other causes of villous atrophy, including celiac disease, refractory sprue, and intestinal lymphoma.
- Antienterocyte and/or antigoblet cell antibodies.

Treatments for autoimmune enteropathy that have been reported in the past have included corticosteroids, cyclophosphamide, tacrolimus, and infliximab.

Most of the Mayo Clinic patients (14 of 15) were treated with immunosuppressive therapy. Four received prednisone alone, and most of the others received prednisone followed by budesonide, azathioprine, and/or 6-mercaptopurine.

Two patients received treatment with prednisone followed by either 6-mercaptopurine or azathioprine with infliximab. One patient received metronidazole for 4 weeks as well as diphenoxylate, but did not respond. Nine of the patients responded to their treatment with complete resolution of their diarrhea, and three patients had a partial response.

High-dose steroids (greater than 40 mg/day) produced a rapid clinical response in two patients, but both needed additional therapy to maintain remission within 3-11 months.

One patient responded to prednisone 10 mg/day, and remained in remission on 5 mg/day for 14 months. Five of the responders went into remission with prednisone at doses of 20-60 mg/day in 4-8 weeks, then were maintained with budesonide. Infliximab was used in two patients and produced a rapid response, the investigators said. ■

Mild, Acute Pancreatitis Resolves Well With a Normal Diet

BY MITCHEL L. ZOLER
Philadelphia Bureau

PHILADELPHIA — An early return to a normal diet was not harmful and might even have expedited the hospital discharge of patients with mild, acute pancreatitis in a randomized, prospective study with 62 patients.

"Early feeding appears safe and may lead to reduced emotional and financial costs," Dr. Nison L. Badalov said at the annual meeting of the American College of Gastroenterology.

"The dogma has been that stimulating the pancreas [by a usual, oral diet] leads to enzyme secretion and complications" of pancreatitis, which has led to a standard approach of "resting the pancreas" by relying on parenteral nutrition and intravenous hydration, said Dr. Badalov, a gastroenterologist at Maimonides Medical Center in New York.

Dr. Badalov and his associates randomized consecutive patients with mild, acute pancreatitis seen at Maimonides during September 2006–September 2007 to three different feeding strategies. The patients' average age was about 55 years. Patients were diagnosed with acute pancreatitis by meeting at least two of these three criteria: pain consistent with pancreatitis, an imaging study (such as CT) that confirmed the diagnosis, and a serum amylase level of more than three times the upper limit of normal.

Mild pancreatitis was defined as having a Ranson score of less than 3, and an acute physiology and chronic health evaluation (APACHE) II score of less than 8, with no evidence of organ dysfunction or pancreatic necrosis at admission.

Patients were placed on either a nothing-by-mouth (NPO) regimen, a semi-elemental formula as tolerated within 12 hours of admission, or a regular diet as tolerated within 12 hours of admission. There was a significant difference in the median duration of hospitalization between the NPO and regular diet groups: The median length of stay was 3.1 days among the 22 patients who were quickly placed on a regular diet, compared with 5.8 days among 22 patients who were NPO, Dr. Badalov reported. The 18 patients treated with semi-elemental formula had a median length of stay of 3.9 days. ■