

# PPIs Often Misused in Kids With Constipation

BY M. ALEXANDER OTTO

SEATTLE — Proton-pump inhibitors are often the wrong choice when it comes to treating abdominal pain in children, according to Dr. Ghassan Wahbeh.

Dr. Wahbeh, director of the inflammatory bowel disease program at Seattle Children's Hospital, sees many children referred to him with gastrointestinal complaints who are on proton-pump inhibitors (PPIs) when they are not indicated. He suspects the drugs are overused.

Some PPIs are indicated for *Helicobacter pylori*-related gastric complications and pediatric gastroesophageal reflux disease (GERD), which has a definable triad of symptoms—chest pain, heartburn, and dysphagia—but Dr. Wahbeh said patients with abdominal pain come to him on PPIs even though they have none of those classic GERD symptoms or evidence of *H. pylori* infections.

On work-up, those children most often turn out to have functional constipation and functional abdominal pain, both of which are underrecognized, Dr. Wahbeh said at a conference sponsored by the North Pacific Pediatric Society.

The pain is thought to be related to gastrointestinal nerve inflammation and hypersensitivity, triggered by infection, medication reaction, or some other insult. Constipation can make it worse. The two often go together, he said.

Pain location in constipated children varies. When it's epigastric pain, it's often incorrectly presumed to be GERD related. "Epigastric pain does not mean gas-

troesophageal reflux. The presumed relation of epigastric pain to gastroesophageal reflux is unproven," Dr. Wahbeh said.

"It is possible that severe reflux esophagitis with ulceration can cause upper abdominal pain. However, this is quite rarely seen in clinical practice, and if so, quite specific to children with neuromuscular disorders [such as] cerebral palsy or large diaphragmatic hernias," he said.

**A month of treatment with a branded PPI can run \$500. Once the drug is stopped, there's the risk of oversecretion of stomach acid.**

But "we are harpooned by ads for acid blocker. They are imbedded in mind," he said, so they are turned to a bit too often.

Although PPIs may have a temporary laxative effect, their use otherwise in functional abdominal pain and constipation is problematic, he said.

A month of treatment with a branded PPI can run \$500, he said. Once the drug is stopped, there's the risk of oversecretion of stomach acid (*Gastroenterology* 2009;137:80-7).

Also, incorrectly labeling a child with a pre-existing condition like GERD can cause problems with insurance coverage later on and trap a child into an algorithm of GERD treatments.

When working up a child with suspected functional constipation and abdominal pain, a blood panel makes sense to rule out anemia, hypoalbuminemia, celiac disease, inflammatory markers, and other problems, and also to calm the nerves of patients and families. Imaging will help rule out gallstones, abdominal masses, and anatomic abnormalities, if symptoms warrant it, Dr. Wahbeh said.

Along with a comprehensive history and physical, a

digital rectal exam is essential. It is the only effective and accurate way to determine if a child is constipated, but "it's not comfortable, and it's not something most of us jump at," he said. However, if its importance is explained to patients and caretakers, it's "rarely turned down," he added. Having a medical assistant or nurse chaperone present during the digital exam will help avoid problems in case the exam is misinterpreted by patients and families.

Functional abdominal pain and constipation can be a frustrating diagnosis for clinicians, caretakers, and children alike. It seems strange to patients and families that such severe and long-lasting pain can be caused by something as common as constipation, or made worse by fructose or lactose intolerance.

Adding to the frustration, treatment is conservative and improvements are slow in coming. Depression and anxiety during the process are not uncommon, Dr. Wahbeh said.

Because of that, he said it is essential to establish trust in the therapeutic relationship. Tell patients and caretakers that things will "get better, but not any time soon," and that it will take a multidisciplinary approach that sometimes includes a psychologist, social worker, pain specialist, and dietician, among others, he said.

In addition to diet modifications and other interventions, a child with functional constipation will be on daily laxatives, sometimes for over a year. Biofeedback and exercise also help, and there's some support in the literature for gabapentin, amitriptyline, or clonidine to help with the presumed nerve inflammation and hypersensitivity, Dr. Wahbeh said.

Dr. Wahbeh disclosed research or grant support from Abbott Laboratories, Centocor Inc., and UCB. ■

## Capsule Endoscopy Results Mixed in Obscure GI Bleeding

BY SHARON WORCESTER

Capsule endoscopy improved diagnostic yield in patients with obscure gastrointestinal bleeding, but that did not translate into better outcomes in a randomized study comparing the procedure with dedicated small bowel contrast radiography.

Diagnostic yield was significantly greater in 66 patients randomized to undergo capsule endoscopy than in 70 who underwent dedicated small bowel contrast radiography (30% vs. 7%), but the primary end point of further bleeding occurred in 30% of the capsule endoscopy patients, compared with 24% of the contrast radiography patients, the investigators reported (*Gastroenterology* 2010 May[doi: 10.1053/j.gastro.2010.01.047]).

Patients in the study had an average age of about 55 years; 54 had overt bleeding and 82 had occult bleeding at randomization. Patients who had overt bleeding at randomization were almost twice as likely as those with occult bleeding to have further bleeding during the study; 39% vs. 20% had further bleeding in the overt and occult bleeding groups, respectively.

Also, those with overt bleeding at randomization who were assigned to the capsule endoscopy group were more likely to have further bleeding, compared with those with overt bleed-

ing assigned to the radiography group (50% vs. 29% had further bleeding, respectively).

Those with occult bleeding at randomization had similar rates of further bleeding regardless of randomization; 18% and 21% had further bleeding in the capsule endoscopy and radiography groups, respectively, the investigators noted.

No significant differences were seen between the capsule endoscopy and radiography groups in regard to the need for transfusions, subsequent hospitalization, or additional interventions for diagnosis or treatment of bleeding, said Dr. Loren A. Laine of the University of Southern California, Los Angeles, and his colleagues.

The investigation findings demonstrate that most patients with obscure GI bleeding do well regardless of whether their abnormalities are detected by capsule endoscopy, and that further interventions might be necessary regardless of the success or failure of the procedure.

"In addition, merely visualizing a lesion on capsule (or radiography) does not document that the lesion is the cause of bleeding unless active bleeding or stigmata of recent hemorrhage are also identified," they wrote.

The findings of this study have no bearing on current recommendations from the American Gastroenterological

### VITALS

**Major Finding:** In patients with gastrointestinal bleeding, diagnostic yield was significantly greater in 66 patients randomized to undergo capsule endoscopy than in 70 who underwent dedicated small bowel contrast radiography (30% vs. 7%), but the primary end point of further bleeding occurred in 30% of the capsule endoscopy patients, compared with 24% of the contrast radiography patients.

**Data Source:** A randomized controlled trial.

**Disclosures:** This study received grant support from the American Society for Gastrointestinal Endoscopy Wireless Video Capsule Endoscopy Clinical Research Award. The authors reported that they have no disclosures relevant the study.

Association regarding the management of patients with obscure GI bleeding, because the study did not directly assess the AGA management algorithm, which calls for capsule endoscopy after a negative upper endoscopy and colonoscopy in those with obscure GI bleeding, subsequent interventions directed by the findings of a positive capsule endoscopy, and observation or—if warranted—further diagnostic testing in those with no bleeding source identified.

In this study, capsule endoscopy was evaluated only after patients had a negative upper endoscopy, colonoscopy, and push enteroscopy; the investigators used this approach because push enteroscopy has the ability to obtain diagnostic specimens and provide therapy, and because it is likely to identify nearly half of the abnormalities seen on capsule endoscopy, the explained.

"Future randomized trials will need

to assess whether push enteroscopy or capsule should be the first test after negative upper endoscopy and colonoscopy and whether capsule endoscopy would improve outcomes if performed prior to push enteroscopy," they said.

The investigation findings do not rule out the possibility that some patients may benefit from capsule endoscopy, they noted, adding that future studies also should attempt to identify clinical characteristics that help stratify the use of capsule endoscopy and other interventions.

However, the development of technology allowing external control in capsule endoscopy, and equipping it to perform diagnostic and therapeutic interventions, might be necessary before significant improvements in clinical outcomes associated with its use in this population become apparent, they concluded. ■