# Diabetes + Celiac Disease = Dietary Difficulties

BY BRUCE JANCIN

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KEYSTONE, COLO. — Many type 1 diabetic patients with comorbid celiac disease say the celiac disease is actually the harder of the two to deal with, according to a presentation at a conference on the management of diabetes in youth.

The gluten-free diet is particularly challenging for such patients. Patients with celiac disease often are asymptomatic, and because they already have one demanding lifelong chronic disease in the form of diabetes, they and their families need to be persuaded of the importance of following the diet on a lifelong basis, according to dietitian and diabetes educator Gail Spiegel.

A couple of educational visits with a dietitian having expertise in both diseases can be helpful, said Ms. Spiegel, a registered dietitian at the Barbara Davis Center for Childhood Diabetes. The center cosponsored the conference with the University of Colorado and the Children's Diabetes Foundation at Denver.

Among the essential concerns in these patients are the following:

▶ Insulin needs might increase as a consequence of the improved carbohydrate absorption that accompanies intestinal healing.

► Skill is needed to distinguish safe from unsafe grains and to decode confusing food product labeling.

► Avoiding cross-contamination, a common problem in families where not everyone has gone gluten-free, is essential.

► Eating out safely must be mastered.

▶ Tapping into resources including cookbooks, Web sites, sample menus and recipes, lists of gluten-free snacks, and support groups can be extremely valuable.

Ms. Spiegel noted that "gluten-free diet" is a misnomer. Gluten is found only in wheat, but prolamins harmful to patients with celiac disease are also present in rye, barley, spelt, and triticale. All must be avoided.

Many gluten-free food products are not fortified, so a gluten-free multivitamin is important. Also, gluten-free grains are often more carbohydrate-dense and lower in fiber. Relatively high-fiber, high-protein gluten-free grains include buckwheat, quinoa, amaranth, soy flour, and nut flours.

Oats are a kid-friendly source of dietary fiber. Oats are problematic, however, because most oats are contaminated, having been grown in the same field or processed in the same facility as gluten-containing grains. About one-half cup of dry uncontaminated oats per day has been shown to be safe in most children with

Patients have deep-rooted

fears that go back to the old

days of rigid sigmoidoscopy

practices, both of which

increased discomfort.

and poor sedation

celiac disease. Several Internet-based sources of uncontaminated oats are available. (See box.)

The Food and Drug Administration is in the process of finalizing language for a new, more informative gluten-free designation on food labels. Meanwhile the Gluten Intolerance Group of North America has attempted to fill the void by starting the Gluten-Free Certification Organization in 2005. Foods containing less than 10 ppm of gluten earn the group's gluten-free certification mark. Many food companies are participating.

The good news is that the food industry is responding to the needs of patients with celiac disease and their families. "There are way more gluten-free foods available in the last few years than I've ever seen before," according to the dietitian.

### **Resources for Celiac Disease Patients**

### Patient Advocacy and Support Groups

► Cel-Kids Network: www.csaceliacs.org.

- ► R.O.C.K. Raising Our Celiac Kids: www.celiackids.com.
- ► Celiac Disease Foundation: www.celiac.org.
- ► Celiac Sprue Association: www.csaceliacs.org.
- ► Gluten Intolerance Group of North America: www.gluten.net.

#### **Sources of Uncontaminated Oats**

- ▶ www.glutenfreeoats.com.
- ▶ www.creamhillestates.com.
- ▶ www.bobsredmill.com (also available in some stores).

- ▶ www.onlyoats.com.
- ▶ www.giftsofnature.net.

#### **Informative Web Sites**

- ▶ www.glutenfreediet.ca. Maintained by Canadian registered dietitian and celiac disease expert Shelley Case, this site features free patient educational handouts and lots of information on the gluten-free diet.
- ► www.celiachealth.org. The site of the Children's Digestive Health and Nutrition Foundation.
- ▶ www.celiac.com. A good broadrange reference.
- ▶ www.clanthompson.com. Glutenfree food lists are available for purchase on this site.

## Colonoscopy Without Sedation Had High Acceptance Rates

BY ALICIA AULT
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SAN DIEGO — One third of veterans offered colonoscopy without sedation agreed to the procedure, which was conducted safely and successfully with high levels of patient satisfaction, according to results of a prospective study presented at the annual Digestive Disease Week

A key to the good results seems to have been the use of water infusion in place of air insufflation in about half of the patients studied.

In 2002, the staff at Sepulveda Ambulatory Care Center began offering unsedated colonoscopy because of a nursing shortage in the Los Angeles area, said Dr. Felix Leung, professor of medicine at the Univer-

sity of California, Los Angeles. Sepulveda is part of the VA of Greater Los Angeles HealthCare system.

Veterans could choose to have an unsedated procedure at Sepulveda, or go to a facility in West Los Angeles for a sedated colonoscopy. Speaking with reporters, Dr. Leung said that unsedated colonoscopy is fairly common in most of the world, and that in the United States assentance.

that in the United States, acceptance has ranged from 1% to 7%, according to the literature.

At Sepulveda, about a third of patients needing colonoscopy have agreed to have it without sedation over the last 5 years, and about a quarter have agreed to this at the VA Northern California health care system facility, said Dr. Leung, who is also chief of gastroenterology at Sepulveda. When a colonoscopy is required, patients are told about the pros and cons, he said. On the plus side, they are told that they can talk during the exam, that they can drive themselves home, and that there is no recovery time. However, they are told "that they would feel every little thing that we do

to them, including pain and discomfort," Dr. Leung said.
"I try to do everything I can to not coerce them" into having a procedure without sedation, he added.

Physicians explain that they will do everything possible to minimize the discomfort, but patients are not given any pharmaceutical agents, such as diazepam (Valium), Dr. Leung said in an interview.

Dr. Leung and his colleagues had been looking for a simple, inexpensive method of easing discomfort, one that could be controlled by the endoscopist. In doing a literature search, they determined that using water infusion might be appropriate. Most published accounts described using water as an adjunct to air. Dr. Leung and his colleagues decided to try water in place of air, to make it easier to train fellows, he said.

Dr. Leung and his colleagues prospectively tracked patients who underwent colonoscopy without sedation during a period of about 2 years and 4 months (July 2005 to June 2006 and July 2006 to November 2007). In 2006, colonoscopies were performed with air insufflation, but in 2007, the new water method was used.

With the water method, aliquots of 30-60 mL of warm water were used to open the collapsed lumen at the start of the sigmoid colon. When the water became turbid, it was suctioned out and replaced with new, clean water.

The air cohort included 62 patients, and the water group had 66. Among the 62 in the first group, 54 (87%) had satisfactory bowel prep; 8 (13%) could not complete because of poor bowel prep, and 7 (11%) could not complete because of discomfort. Forty-seven of the 54 who completed (87%) had a successful cecal intubation. Forty-one (76%) said they had a good experience, and 42 (78%) were willing to repeat it without sedation.

Results were much better for the water infusion group,

partly "because the water method provided us with a more complete look at the colon," said Dr. Leung, noting that this was an incidental finding. Based on this study and accumulating experience, he believes that the water makes it easier to pass through narrow segments and does not significantly lengthen the colon, as air does.

The water method also resulted in fewer procedures being rescheduled for poor bowel prep, an especially common occurrence with the older veterans, he said.

The rescheduling rate went from 13% in 2006 to 1.5% in 2007. Only 1 of the 66 patients who had unsedated procedures had an incomplete exam because of poor bowel prep in 2007, he said. Two patients could not complete the study because of discomfort. Of the 66 patients, 63 (97%) had successful cecal intubation, 55 (85%) had a good experience, and 60 (92%) said they would repeat the procedure without sedation.

The water method is not a standard of practice yet. But Dr. Leung said he and his colleagues are now conducting a prospective study in which they are randomly assigning unsedated patients to either air or water.

In either case, going without sedation appears to be acceptable for an increasing number of patients, he said.

Dr. Sidney J. Winawer noted after Dr. Leung spoke that the United States is unusual in its preference for sedated colonoscopy. This can be attributed largely to deep-rooted fears that go back to the old days of rigid sigmoidoscopy and poor sedation practices with colonoscopy, both of which increased discomfort, said Dr. Winawer, Paul Sherlock Chair of the gastroenterology and nutrition service at Memorial Sloan-Kettering Cancer Center in New York.

"We have to overcome this old fear that people have had," he said. "It's very hard to try to reeducate the public that colonoscopy can be a very comfortable procedure, usually with adequate sedation, and they should not be afraid of it," Dr. Winawer said.

Dr. Leung and Dr. Winawer disclosed no conflicts of interest.