

Trials Show Capsule Endoscopy Can Diagnose Celiac Disease

BY KATHLEEN LOUDEN
Contributing Writer

CHICAGO — Video capsule endoscopy appears to equal duodenal histology in detecting villous atrophy and should be used for first-line evaluation of refractory celiac disease, investigators reported at the annual Digestive Disease Week.

Two multicenter trials showed preliminary results with the new PillCam SB capsule endoscope, a pill-sized disposable camera that patients swallow and within 24 hours pass naturally.

The technique allows noninvasive examination of the entire length of the small intestine, according to Dr. med. Norbert Krauss, of Friedrich-Alexander University Hospital, Erlangen-Nuremberg, Germany.

His study, a prospective, blinded European trial, compared video capsule endoscopy with the gold standard—upper-GI endoscopy and duodenal biopsies—in 60 patients with diagnosed celiac disease.

The other study, directed by Roberto de Franchis, M.D., from the University of Milan (Italy), compared capsule endoscopy with upper GI endoscopy in 25 patients suspected of having the gluten-sensitive enteropathy.

In the first pilot study, the patients either had persistent symptoms despite more than a year of a

strict gluten-free diet (44 patients) or were newly diagnosed and were not yet on a gluten-free diet (16 controls).

A dietitian verified that patients had complied with the gluten-free diet.

Two blinded reviewers interpreted the available results for 43 of the 44 patients.

Dr. Krauss said he and his colleagues found a good correlation between the two imaging techniques in both groups.

'PillCam endoscopy appears to be equivalent to duodenal histology in determination of villous atrophy in patients with celiac disease.'

With video capsule endoscopy, all untreated controls showed typical villous atrophy and mucosal alterations, which involved the whole small intestine in three controls.

Of the 43 patients, 34 had mucosal alterations evident on the video, 2 of whom had the entire small intestine affected.

During the video recording, two patients did not show a sufficient view and in the other, the capsule did not reach the duodenum.

In addition, the new device detected ulcers in 23% of the patients with celiac disease.

"We saw many more pathologies with capsule endoscopy," Dr. Krauss said. "I think capsule endoscopy is very important in those patients who have symptoms on a gluten-free diet."

Dr. de Franchis reported that the aim of his study was to evaluate the potential of video capsule endoscopy, compared with conventional upper endoscopy, in detecting villous atrophy in patients with suspected celiac disease.

Whereas the conventional method showed villous atrophy in 18 of the 25 patients, capsule endoscopy found the abnormality in those plus an additional patient, he said.

The sensitivity and specificity of capsule endoscopy were 95% and 86%, respectively. Dr. de Franchis reported that the investigators did not use capsule endoscopy to test for conditions similar to celiac disease.

"PillCam endoscopy appears to be equivalent to duodenal histology in determination of villous atrophy in patients with celiac disease," Dr. de Franchis said.

Dr. Krauss added that video capsule endoscopy should be used as the first-line evaluation in patients with confirmed celiac disease that have proved to be nonresponsive to a gluten-free diet, to exclude lymphoma, and to delineate the expansion of mucosal alterations. ■

GERD Symptoms Common in Diabetes

BY BETSY BATES
Los Angeles Bureau

SAN DIEGO — The prevalence of gastroesophageal reflux disease symptoms in patients with type 2 diabetes is more than twice what is seen in the normal adult population, and appears to be especially high in patients with diabetic neuropathy.

Khushbu Chandrarana, M.D., and her associates conducted a prospective study of 150 patients aged 18 to 82 years with type 2 diabetes. The participants had not been diagnosed with other conditions, such as angina, that might explain gastroesophageal reflux disease (GERD)-type symptoms.

Patients with a GERD diagnosis prior to onset of their diabetes were not included in the study, which was presented as a poster at the annual meeting of the Endocrine Society.

A questionnaire given to eligible consecutive patients targeted the five most common symptoms of GERD: heartburn at least once a week, hoarseness, chronic cough, chest pain, and regurgitation. ■

A total of 40% of patients reported at least 1 GERD symptom and 30% reported having heartburn at least weekly. The prevalence of weekly heartburn in U.S. adults is 14%, said Dr. Chandrarana, a resident in the divisions of endocrinology and gastrointestinal medicine at Saint Peter's University Hospital, New Brunswick, N.J.

Among the 46 patients with neuropathy, 27 (59%) reported GERD symptoms, compared with 34 of the 104 diabetic patients (33%) who did not have neuropathy.

"Since experience of heartburn is likely to be blunted by neuropathy, the actual incidence of GERD may be even higher," Dr. Chandrarana noted.

She encouraged physicians to be sensitive to the possibility that their patients with diabetes might also have GERD, a treatable disease.

The connection makes sense, she pointed out, since the pathophysiology of GERD involves delayed gastric emptying, a common complication of patients with diabetic neuropathy. ■

CLINICAL CAPSULES

Nontoxic Gluten for Celiac Patients

A Dutch study of different wheat varieties has shown that sufficient genetic variation exists to justify continuing the search for wheat with low amounts of the T-cell-stimulatory epitopes that trigger celiac disease, the most common food intolerance in the Western Hemisphere.

Liesbeth Spaenij-Dekking of Leiden (the Netherlands) University Medical Center and her colleagues prepared gluten samples from selected wheat varieties and then tested the gluten for the presence of T-cell-stimulatory epitopes. They used T-cell clones that were generated from small intestine biopsy specimens of celiac disease (CD) patients (*Gastroenterology* 2005;129:797-806).

The research team found "striking differences" in the clones' responses to individual wheat preparations, independent of the genome background of the accessions. They concluded that "this is promising for future breeding programs aimed at generating new varieties that will be acceptable for the manufacturing of food products for CD patients."

In an accompanying editorial, Marco Londei of University College, London, and his associates point out that the current CD therapy of a gluten-free diet is

neither easy to follow nor foolproof, as gluten can contaminate many foods during processing and preparation (*Gastroenterology* 2005;129:1111-3).

Reflux-Related Sleep Disorders

Acid suppression therapy significantly reduced the loss of workplace productivity in patients with gastroesophageal reflux disease-related sleep disorder, according to the first large, randomized controlled trial conducted on such therapy.

David A. Johnson, M.D., of Eastern Virginia School of Medicine, Norfolk, and his colleagues concluded that esomeprazole reduced nighttime heartburn and GERD-related sleep disturbances, improving work productivity and sleep quality as measured by the Pittsburgh Sleep Quality Index questionnaire (*Am. J. Gastroenterol.* 2005;100:1914-22).

The 675 eligible patients were randomized to three treatment groups: esomeprazole 40 mg, esomeprazole 20 mg, and placebo; 650 of the patients were included in the efficacy analyses. Moderate to severe nighttime heartburn was relieved in 53.1% (111/209), 50.5% (111/220), and 12.7% (28/221) of patients receiving esomeprazole 40 mg, esomeprazole 20 mg, and placebo, respectively.

Certolizumab for Crohn's Disease

Certolizumab pegol (CDP870), a polyethylene glycolated Fab' fragment of a humanized anti-tumor necrosis factor- α monoclonal antibody, may be effective at a 400-mg subcutaneous dose and is well tolerated in patients with moderate to severe Crohn's disease, a placebo-controlled, phase II study showed.

Stefan Schreiber of the Hospital for General Internal Medicine and the Institute for Clinical Molecular Biology, Christian-Albrechts University, Kiel, Germany, and his colleagues conducted an international study of 292 patients at 58 centers in 10 countries. The researchers concluded that, while ongoing phase III studies are necessary to confirm their finding of clinical efficacy, the treatment had no untoward effects according to serial hematologic and biochemical measurements (*Gastroenterology* 2005;129:807-18).

However, the results were somewhat compromised by high placebo response rates in a patient subgroup with low C-reactive protein (CRP) levels. In a related editorial, the role of CRP levels was emphasized as potentially helping physicians to improve treatment of patients in routine clinical care. "With increasing development of expensive, and potentially toxic, therapies, we need to optimize the benefit-to-risk profile of our therapies," noted

James D. Lewis of the University of Pennsylvania, Philadelphia (*Gastroenterology* 2005;129:1114-6).

Treating Bleeding Peptic Ulcer

According to a metaanalysis of randomized controlled trials comparing endoscopic and medical interventions for bleeding peptic ulcer with adherent clot, the two are comparable in terms of need for surgical intervention, length of hospital stay, transfusion requirement, and mortality, but endoscopic therapy is superior for preventing recurrent hemorrhage.

Charles J. Kahi of Indiana University Medical Center, and Roudebush Veterans Affairs Medical Center, Indianapolis, and his colleagues identified six studies including 240 patients, of whom 61 underwent endoscopic clot removal and treatment with thermal energy, electrocoagulation, and/or injection of sclerosants. Another 85 patients received medical therapy including transfusions as needed, monitoring in the intensive care unit if indicated, and acid suppression with intravenous H₂ blockers and a proton pump inhibitor (*Gastroenterology* 2005;129:855-62).

The metaanalysis showed that rebleeding occurred in 5 of the 61 endoscopic therapy patients (8.2%) versus 21 of the 85 (24.7%) medical therapy patients.

—Randy Frey