

Reflux Assessment May Guide GERD Treatment

BY JEFF EVANS
Senior Writer

ORLANDO, FLA. — A new diagnostic tool that can detect reflux regardless of pH may help clinicians offer individualized treatment for gastroesophageal reflux disease, Inder Mainie, M.D., said at the annual meeting of the American College of Gastroenterology.

Used in conjunction with esophageal pH monitoring, multichannel intraluminal impedance (MII) monitoring can show whether symptoms of gastroesophageal reflux disease (GERD) are associated with acid or nonacid reflux events—or with no reflux at all, said Dr. Mainie of the digestive disease center at the Medical University of South Carolina, Charleston.

About 35% or more of patients with GERD have persistent reflux symptoms while on proton-pump inhibitor (PPI) therapy, Dr. Mainie noted.

Esophageal pH monitoring alone cannot detect reflux episodes that occur at a pH of 4 or higher (nonacid reflux). But MII devices can detect gastroesophageal reflux independent of pH based on the changes

in the electrical conductivity in the lumen of the esophagus.

A combined approach that uses MII plus pH detection “brings a change in the paradigm for reflux detection,” Dr. Mainie said. “The impedance information identifies reflux episodes, while the pH electrode is used simply to categorize them as acid or nonacid.”

In 125 patients (average age 43 years) with symptoms of GERD who took PPIs twice per day, Dr. Mainie and his colleagues simultaneously measured acid and nonacid reflux at 3, 5, 7, 9, 15, and 17 cm above the lower esophageal sphincter with a combined MII-pH device that is approved by the Food and Drug Administration.

Overall, 101 of the patients had reflux symptoms on the day of testing. Each patient had nonacid reflux events. Typical GERD symptoms (heartburn, regurgitation, and chest pain) occurred in 58 pa-



tients. Among these patients, a positive symptom index occurred with nonacid reflux in 45% and with acid reflux in 10%. Another 45% of patients had typical symptoms without reflux.

The symptom index (SI) represents the percentage of perceived gastroesophageal reflux-related symptoms that correlate with esophageal acid (or nonacid) reflux events. An SI score is positive if 50% or more of the perceived gastroesophageal reflux-related symptoms correlate with acid (or nonacid) reflux events.

In 43 patients who showed atypical GERD symptoms (abdominal discomfort, belch, catarrh, dysphagia, choking, globus, hoarseness, cough, wheeze, or acid taste), a positive SI occurred with nonacid reflux in 23% and with acid reflux in 2% of the patients. Reflux did not occur in 75% of patients who had atypical symptoms.

A positive SI was associated with nonacid reflux in 36% of all patients who experienced GERD-related symptoms during the study; 7% of patients with GERD-related symptoms had a positive SI for acid reflux.

In contrast, 58% of patients had no reflux associated with their symptoms. The percentage of patients with typical symptoms associated with reflux (55%) was significantly higher than the percentage of patients with atypical symptoms associated with reflux (25%).

A total of 15 of the symptomatic patients were younger than 16 years old. No differences occurred in the types of reflux associated with symptoms between children or adults.

“MII-pH helps to clarify underlying, persistent GERD-related symptoms during PPI therapy,” Dr. Mainie said. “Clinical presentation alone is not sufficient to identify the presence or absence of reflux-causing symptoms.”

Dr. Mainie and his colleagues at the university are gathering data on the outcomes of these patients to determine the role of MII-pH in directing therapy. ■

Evaluate History and Meds In Supraesophageal GERD

BY SHARON WORCESTER
Tallahassee Bureau

ORLANDO, FLA. — Supraesophageal manifestations of reflux disease pose a treatment challenge, Reza Shaker, M.D., said at the annual meeting of the American College of Gastroenterology.

There is a misperception that when reflux is treated, other related disorders—such as laryngitis—will disappear as well, but that’s not always the case, said Dr. Shaker, chief of gastroenterology and hepatology at the Medical College of Wisconsin, Milwaukee.

When faced with a patient who has lingering laryngitis, throat clearing, and other conditions presumed to be associated with gastroesophageal reflux disease, he recommends the following:

► **Interview the patient carefully.** A thorough history is imperative for ensuring the correct diagnosis. Most patients won’t present with cut-and-dried signs and symptoms of GERD. More often, there is a little redness in the area of the supraesophageal structures. Studies show that the presence or absence of symptoms may not be as specific for diagnosis as previously thought.

► **Evaluate the therapeutic options.** Reevaluate the use and value of therapy; the treatment must be tailored to individual patient needs. Although some patients need simple acid suppressive therapy, others with mild disease could respond well to reflux precautionary measures, such as having an empty stomach at bedtime, he said. Others need a combination approach, and still

others will require surgery.

Surgeons, however, are increasingly requiring that patients have shown a prior response to medical therapy, indicating that the diagnosis is correct.

In evaluating the effectiveness of the current therapy, check to see if acid has been adequately suppressed. The use of esophageal acid monitoring can be helpful. Also, ensure proper timing of medication dosing. “How many patients do we encounter who take their medicine at the wrong time in the morning and then drink a cup of coffee?” he asked.

Also, confirm that the dosage is adequate.

► **Recommend the use of precautionary measures.** A key difference between the esophageal and supraesophageal structures is that nonacidic and minimally acidic materials can cause injury to the supraesophageal structures. Having an empty stomach before bedtime is important.

Patients should be evaluated for delayed gastric emptying, which occurs in about 40% of GERD patients. This may not be important when dealing with complications of the esophagus in this age of proton pump inhibitors, but it can create a reservoir for acid and nonacid material that can be harmful to the supraesophageal area.

► **Consider referral to an ear, nose, and throat specialist.** Remember that reflux is not exclusive for aerodigestive tract disorder, and consider referring patients who fail to respond to therapy to an ENT physician for additional evaluation, he advised. ■

Obesity, Not Diet, Seems to Boost Risk for GERD and Esophagitis

BY MITCHEL L. ZOLER
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NEW ORLEANS — Both gastroesophageal reflux disease and erosive esophagitis were associated with obesity in a study of 453 hospital employees.

The results also showed that neither the amount of certain foods nor the composition of the individual’s diet was related to reflux or erosive esophagitis, suggesting that the link between obesity, reflux, and esophagitis may be mechanical or hormonal, Hashem B. El-Serag, M.D., said at the annual Digestive Disease Week.

Several prior studies by other investigators had divergent findings on the links between obesity, reflux, and esophagitis. One strength of the study was that it collected information about diet and so was able to rule out the amounts of certain foods in the diet as a cause, said Dr. El-Serag, head of the GI outcome research unit at the of the Veterans Affairs Medical Center in Houston.

The study focused on a sample of the employees who worked at the center. Questionnaires were sent to 915 of the approximately 3,000 employees at the center regarding their symptoms of gastroesophageal reflux disease (GERD), their diet during the past year, and their height and weight. Completed questionnaires were returned by 453 employees; this group also underwent endoscopy to see if they had erosive esophagitis.

The 453 participants had a mean age of

44 years, and 70% were women; 43% were African American, 33% were white, and 24% were from other racial groups, a split that roughly matched the demographics of the full group of 3,000 employees. The questionnaire results showed that 118 people had at least weekly symptoms of GERD.

In a multivariate analysis that adjusted for several potential confounders—including age, gender, race, education, smoking, diet, and family history—subjects with a body mass index (BMI) of more than 30

Subjects who had a BMI of more than 30 kg/m² were found to be 2.4-fold more likely to have weekly GERD symptoms than those with a BMI of less than 25 kg/m².

kg/m² were 2.4-fold more likely to have weekly GERD symptoms, compared with those with a BMI of less than 25 kg/m², a statistically significant difference.

The analysis showed that subjects with a BMI of 25-30 kg/m²

had a 1.8-fold increased risk of GERD symptoms, compared with their leaner coworkers, a difference not statistically significant.

The endoscopy results showed that 43 subjects had erosive esophagitis and 410 did not. In an unadjusted analysis, people with a BMI of at least 25 kg/m² had a 2.75-fold increased risk of having erosive esophagitis, compared with those with a BMI of less than 25 kg/m². Because there were relatively few cases of erosive esophagitis, Dr. El-Serag and his associates did not adjust for all confounders in a single model.

However, when two or three confounders were factored in at a time, including age, diet, and severity of GERD symptoms, none altered the significant effect of BMI on erosive esophagitis. ■