

Screen Sleep Disorder Patients for GI Reflux

Treating gastrointestinal reflux can improve sleep—and treating sleep disorders can improve reflux.

BY JANE SALODOF MACNEIL
Senior Editor

SCOTTSDALE, ARIZ. — Patients with sleep disorders should be screened for gastrointestinal reflux, Dr. Susan M. Harding advised at a meeting on sleep medicine sponsored by the American College of Chest Physicians.

Heartburn is common in patients with sleep complaints and can make their sleep problems worse, according to Dr. Harding, a professor of medicine and medical director of the Sleep/Wake Disorders Center at the University of Alabama, Birmingham.

It has not been shown to cause sleep disorders, or vice versa, she said. Nonetheless, researchers have demonstrated that treating gastrointestinal reflux can improve sleep—and that treating sleep disorders can improve reflux.

In one study cited by Dr. Harding, 62% of obstructive sleep apnea patients had symptoms of nighttime reflux. The patients who were compliant with continu-

ous positive airway pressure therapy reduced their symptoms by 48%. Noncompliant patients had no improvement (Arch. Intern. Med. 2003;163:41-5).

Conversely, Dr. Harding cited a trial that enrolled 650 reflux patients with sleep complaints. Four weeks of treatment with a proton pump inhibitor significantly reduced sleep disturbances and improved sleep quality (Am. J. Gastroenterol. 2005;100:1914-22).

"Nighttime reflux is common in heartburn patients," she said. "It causes sleep difficulties, and it is inadequately treated."

Stable sleep protects against reflux, according to Dr. Harding. Esophageal acid take much longer to clear during sleep, and people swallow less often. Acid clearance mostly occurs during arousals.

"Is there an association between sleep-related reflux and obstructive sleep apnea?" she asked rhetorically. "Maybe. Maybe not."

Despite identifying reflux in many obstructive sleep apnea patients, Dr. Harding noted that studies have failed to find a

causal relationship or correlations among reflux scores, apnea severity, and other variables by which the two conditions are measured.

The conditions coexist in many patients, she said, which suggests that the relationship may be complex. "Reflux is not caused by obstructive sleep apnea, but reflux may be facilitated by obstructive sleep apnea," she said, and called for more studies examining transient lower esophageal sphincter relaxations in obstructive sleep apnea patients.

Reflux should be considered whenever a patient presents with insomnia or excessive daytime sleepiness, according to Dr. Harding. Patients with erosive esophagitis are prone to sleep disturbances, she said, and nocturnal reflux has been shown to trigger respiratory symptoms in asthma patients. Sleep-related laryngospasm also can be triggered by reflux.

Consider doing esophageal pH monitoring along with polysomnography, Dr. Harding advised. If sleep-related reflux is diagnosed, urge patients to make the following lifestyle modifications (Arch. Intern. Med. 2006;166:965-71):

- ▶ Not eating for 2 hours before bedtime.
- ▶ Raising the head of the bed by about

6 inches using stacked bricks or a wedge.

- ▶ Avoiding certain foods (fats, caffeine, tomato products, sodas, and so forth).
- ▶ Avoiding medications (such as calcium channel blockers) that can worsen reflux.
- ▶ Taking antacids or alginate acid.
- ▶ Not smoking.
- ▶ Losing weight if obese.

Dr. Harding also suggested that patients try acid blockers (H₂-receptor antagonists and proton pump inhibitors), prokinetic agents (metoclopramide), continuous positive airway pressure in obstructive sleep apnea patients, and surgical fundoplication.

Some sleep patients should be referred to a gastrointestinal specialist for endoscopic screening, she added. These would include patients with dysphagia; older patients with blood loss, anemia, or weight loss; men over 40 who have frequent reflux episodes; and patients not being treated with a proton pump inhibitor.

"There are a lot of esophageal diseases," she said. "If your patients are not getting better, refer them."

Dr. Harding disclosed that she receives grant support from and is a contributor to AstraZeneca LLP, maker of a proton pump inhibitor. ■

Screening for Apnea Cuts ICU Admissions After Gastric Bypass

BY NANCY WALSH
New York Bureau

CHICAGO — Mandatory screening for obstructive sleep apnea can significantly reduce the need for intensive care unit admission following bariatric surgery, Dr. Peter T. Hollowell said at the annual meeting of the Central Surgical Association.

"In our center, mandatory screening and aggressive preoperative treatment for sleep apnea has actually eliminated the need for respiratory-related ICU stay," said Dr. Hollowell of the department of surgery, Case Western Reserve University, and the bariatric surgery program at University Hospitals Case Medical Center, both in Cleveland.

Previous studies have suggested that approximately 20% of patients have ICU stays following bariatric surgery, and sleep apnea—prevalent among the morbidly obese—is associated with increased postoperative complications such as respiratory distress.

"We have long suspected that sleep apnea is underdiagnosed in the bariatric population, so we did a retrospective review of our bariatric database from 1998 to 2005, comparing the era of selective screening with the era of mandatory screening," Dr. Hollowell said.

Mandatory screening was implemented in 2004. All patients underwent an overnight polysomnogram and, if apnea was detected, continuous positive airway pressure therapy was instituted.

Before undergoing bariatric surgery, patients also are required to participate in an extensive education program, to stop smoking, and to begin exercising.

For a comparison of the effect of preoperative sleep apnea screening, patients were divided into two groups. Group 1 included the 572 patients who had gastric bypass between 1998 and De-

cember 2003; group 2 included the 318 who had the surgery between January 2004, when mandatory screening was instituted, and December 2005.

The groups were well matched in terms of demographics and comorbidities. Mean body mass index was 51.1 kg/m² for group 1 and 49.6 kg/m² for group 2.

Among the patients in group 1, there were 11 ICU admissions for respiratory problems and 21 for other complications such as leaks, bleeds, or obstruction either intraoperatively or postoperatively. In group 2, there were 11 ICU admissions in all, none of which were for respiratory complications, Dr. Hollowell said.

The difference in respiratory-related admissions between the two groups was statistically significant.

The average length of stay among patients admitted to the ICU was 12 days, compared with 2.8 days for those who did not require admission.

Multiple factors, including increased surgical experience, patient education, and the requirement for smoking cessation have led to a decrease in the need for ICU admission following bariatric surgery. "Our study shows that recognizing and treating occult sleep apnea further improves this quality metric," Dr. Hollowell said.

Audience member Dr. Henry Buchwald of the University of Minnesota, Minneapolis, asked about patients who have had the procedure since the study cutoff in 2005. "At present, we now have 414 patients in group 2 and still have had no respiratory admissions," Dr. Hollowell replied.

Dr. Buchwald also asked about the cost of sleep apnea screening. "The expense for evaluation and treatment of sleep apnea is approximately \$5,000, while the cost for the ICU is about \$3,000 a day without a ventilator or critical care consult," Dr. Hollowell said. ■

Surgery Still an Option For Some GERD Patients

BY MICHELE G. SULLIVAN
Mid-Atlantic Bureau

ORLANDO — Laparoscopic Nissen fundoplication is a feasible option for some patients with medically refractory gastroesophageal reflux disease, Dr. Ignazio M. Civello said at a meeting on laparoscopy and minimally invasive surgery sponsored by the Society of Laparoendoscopic Surgeons.

"We used to do this procedure much more often than we do now," said Dr. Civello, director of surgery at the Università Cattolica del Sacro Cuore Policlinico Gemelli, Rome. "But it still may be an option for patients who experience symptoms despite adequate medical therapy or for those who don't wish to embark on long-term medication."

He presented a 5-year case series of 150 patients (mean age 55 years) who underwent the surgery. All of them had gastroesophageal reflux symptoms, including heartburn (95 patients), dysphagia (62), epigastric pain (65), and chest pain (35).

Preoperatively, all of the patients underwent barium x-ray, endoscopy, esophageal motility testing, and 24-hour pH monitoring, Dr. Civello said.

Of the 150 patients, 147 had

severe acid reflux on pH monitoring. Endoscopic evidence of esophagitis was seen in 68, and 55 also had hiatal hernia with defective lower esophageal sphincter.

The entire group underwent laparoscopic Nissen fundoplication with no division of the short gastric vessels, and a concomitant crural repair.

The mean operative time was 90 minutes. There were two conversions: one because of splenic injuries that were not repairable by laparoscopy, and one caused by a large gastric fundus perforation during the flap construction maneuver.

The average hospital stay was 3 days. There was no postoperative morbidity or mortality. Follow-up of 6-18 months was available for 135 patients.

The outcomes were assessed by using a structured questionnaire and repeat 24-hour pH monitoring.

All of the patients had resolution of their acid reflux. Functional results were excellent in 85%, good in 10%, fair in 3%, and poor in 2%.

Persistent dysphagia occurred in 15 patients, and 20 had gas and bloating—a transient postoperative phenomenon that usually resolves within 12 months of surgery, Dr. Civello said. ■