

# Internal Hernias May Follow Gastric Bypass

BY DAMIAN McNAMARA  
Miami Bureau

ORLANDO — Although internal hernias occur infrequently, they are a potentially serious complication that can develop long after gastric bypass surgery, according to a study presented by Brennan J. Carmody, M.D., at the annual meeting of the American Society for Bariatric Surgery.

"Internal hernia can be a devastating postoperative complication that leads to intestinal obstruction," he said. With an overall incidence of 2.5%, clinical suspicion for internal hernia needs to be high.

Consider internal hernia when a bariatric surgery patient presents with abdominal pain, even if more than a year has passed since the procedure was done, Dr. Carmody suggested. In his study, all 20 patients who required surgery to correct an internal hernia initially presented with abdominal pain. Nausea, vomiting, and bowel obstruction are other clinical clues.

Dr. Carmody and his associates reviewed 785 laparoscopic gastric bypass procedures performed between 1998 and 2003 at Virginia Commonwealth University Medical Center in Richmond. The mean preoperative body mass index was 47 kg/m<sup>2</sup>, and BMI was a mean 31 at presentation. Mean patient age was 36 years. There were no deaths.

The researchers identified different types of hernias, including Peterson's, mesocolic, jejunojejunal, and adhesion-related hernias. They used contrast radiography to assess 75% of patients. All findings were suspicious for internal hernia.

Surgical technique made a difference in the complication rate. In the first 107 patients, surgeons performed a retrocolic technique without defect closure. The internal hernia rate in this group was 6.5%. An antecolic technique was used with another 136 patients, and 4.4% developed a hernia. For the remaining 542 patients, surgeons performed a retrocolic technique with closure of all defects. Three developed an internal hernia, giving this group the lowest hernia rate—0.5%.

"We recommend routine closure of all mesenteric defects," Dr. Carmody said.

"Patients, primary care physicians, radiologists, surgeons, and physician assistants may fail to recognize signs or symptoms.

Patients experiencing unexplained or intermittent abdominal pain should be considered for reexploration," said Dr. Carmody, a laparoscopy Fellow with the Minimally Invasive Surgery Center at Virginia Commonwealth University.

There might be a reluctance to reexplore patients with vague symptomatology, Dr. Carmody said.

But that is not the only challenge. A mean of 303 days elapsed between bypass and development of symptoms in his study. The patient with a late complication may not see the same bariatric surgeon who performed the procedure, he said.

"Internal hernia can occur long after gastric bypass with variable presentation," Dr. Carmody concluded.

"There is an underreporting of this complication. The true incidence is likely underestimated," he said. ■

# Resolve Obstructive Sleep Apnea Before Gastric Bypass Surgery

BY BRUCE JANCIN  
Denver Bureau

DENVER — All candidates for gastric bypass surgery should be evaluated for obstructive sleep apnea, Brian Abaluck, M.D., said at the annual meeting of the Associated Professional Sleep Societies.

The prevalence of this sleep disorder is extremely high among the morbidly obese. Indeed, Dr. Abaluck reported that the rate was 70% in a series of 139 consecutive patients scheduled for gastric bypass surgery who underwent overnight polysomnography and completed the Epworth Sleepiness Scale and the Multivariable Apnea Prediction questionnaire.

It's important to identify and treat affected patients because obstructive sleep apnea (OSA), if untreated prior to gastric bypass surgery, can cause numerous perioperative complications, explained Dr. Abaluck of the University of Pennsylvania, Philadelphia.

Particularly striking in this patient se-

ries was the high rate of REM-related obstructive sleep apnea as defined by an apnea-hypopnea index (AHI) higher than 10 during REM sleep and an AHI higher than 20 during non-REM sleep. REM-related OSA was diagnosed in 78% of patients and was rated as severe in 44% of the study population. Of note, in many patients with severe REM-related obstructive sleep apnea, the total AHI was only mildly elevated.

The higher a patient's body mass index, the greater the apnea-hypopnea index tended to be. A higher AHI also correlated with a higher Multivariable Apnea Prediction score and with female gender. However, no correlation was found between body mass index and the score on the Epworth Sleepiness Scale.

Dr. Abaluck and his colleagues are now trying to identify screening tools that will permit more selective use of overnight polysomnography—which is costly and inconvenient—in patients preparing for gastric bypass surgery. ■

# Crural Defect Repair Can Salvage Many 'Failed' LAGB Procedures

BY SHARON WORCESTER  
Tallahassee Bureau

HOLLYWOOD, FLA. — Undiagnosed hiatal hernias or large hiatal crural defects account for many failed laparoscopic adjustable gastric banding procedures, and correcting these defects can obviate band removal, George A. Fielding, M.B., reported at the annual meeting of the Society of American Gastrointestinal Endoscopic Surgeons.

In one series of 2,450 patients who underwent laparoscopic adjustable gastric banding (LAGB), 5% experienced symptomatic failure.

Most of these failures were a result of reflux or dysphagia, and many of the patients were found to have a hiatal hernia or large hiatal crural defect, Dr. Fielding wrote in the "poster of distinction" that he presented at the society meeting.

Such patients are now offered repair of the hernia or crural defect. Of those who presented with severe reflux at a mean of 44 months following LAGB, all were on proton pump inhibitor therapy, nine were considering band removal, four had severe dysphagia, nine had hiatal hernia/concentric dilatation, and six had slipped bands.

At an average of 15 visits, the mean band fill was only 1 cc; nine of the patients had empty bands.

A total of 23 patients underwent repairs: 13 had crural defect repair alone, the 4 with severe dysphagia also had a change to an 11-cm band, and the 6 with slipped bands also had repair of the slips, wrote Dr. Fielding of New York University Medical Center, New York.

At a mean follow-up of 13 months, patients had a mean of four postoperative visits and a mean band fill of 2 cc in the standard bands.

All patients were no longer taking proton pump inhibitors and were asymptomatic and reported being satisfied with the bands.

In the 14 months since LAGB, symptomatic patients have been offered defect repair as an alternative to band removal, no bands

have been removed, compared with removal of a mean of 10 per year in previous years, Dr. Fielding reported.

The repair of hiatal hernias and large hiatal crural defects will cure reflux symptoms and greatly reduce the need for band removal in LAGB patients with persistent reflux symptoms, allowing band tightening as appropriate, he concluded. Dr. Fielding also noted that surgeons should look for and repair such defects at the time of the original LAGB surgery. ■

**Among 2,450 patients who underwent LAGB, 5% experienced symptomatic failure; most of these failures were a result of reflux or dysphagia.**

# Gallstone Prophylaxis Is Called Costly And Unwarranted After Gastric Bypass

ORLANDO — Cholecystectomy or 6 months of prophylactic medication to prevent gallstones after gastric bypass surgery is unwarranted for most patients and is expensive, according to results of a study presented by Joseph A. Caruana, M.D., at the annual meeting of the American Society for Bariatric Surgery.

Dr. Caruana and his associates studied 100 women and 25 men after open Roux-en-Y gastric bypass. None of the participants received ursodeoxycholic acid, a medication often used to prevent gallstones during rapid loss of weight. All procedures were performed at the Sisters of Charity Hospital in Buffalo, N.Y., from June 2000 to July 2002. Participants did not have palpable gallstones at the time of surgery, and required at least 16 months of follow-up for inclusion in the study.

A total of 10 patients (8%) developed symptomatic gallstones that required cholecystectomy. Nine of these 10 women had laparoscopic cholecystectomy, and 1 had an open procedure. There were no serious complications from the gallstones or cholecystectomies, said Dr. Caruana, a laparoscopy fellow at the Sisters of Charity Hospital.

"Prophylactic cholecystectomy would have been unnecessary in 115 patients,"

Dr. Caruana said. "The risk and cost of prophylactic cholecystectomy outweigh the benefits. Concomitant cholecystectomy is indicated only when stones are detected pre- or intraoperatively."

The incidence of symptomatic stones in the first two postoperative years was about 6% per year, Dr. Caruana said. "Most newly formed stones after gastric bypass are asymptomatic." He added that most patients with asymptomatic stones will remain asymptomatic during their lifetimes.

Many surgeons have proposed prevention with a cholecystectomy at the time of gastric bypass surgery (Obes. Surg. 2004;14:763-5). However, "most general surgeons would not remove the gallbladder during other procedures without the presence of stones," Dr. Caruana said.

Rapid weight loss after gastric bypass surgery can cause gallstones to form in up to 50% of patients, Dr. Caruana noted. For this reason, some experts recommend 6 months of ursodeoxycholic acid. A 6-month course of ursodeoxycholic acid for all 125 participants in the study would have cost \$56,250, he said.

A better use of ursodeoxycholic acid might be for symptomatic patients who refuse surgery, he suggested.

—Damian McNamara