

Post-Bariatric Surgery Guidelines Forthcoming

BY JEFF EVANS

WASHINGTON — Adult bariatric surgery patients need to be monitored in the long-term postoperative period for nutritional deficiencies, risks to bone and joint health, and changes in obesity-related comorbidities, according to a draft of new guidelines from the Endocrine Society.

The guidelines will focus primarily on long-term patient management, because immediate postoperative care is largely the purview of the surgeons who performed the operation, Dr. Lee M. Kaplan, a member of the seven-person task force that is writing the guidelines, said at the society's annual meeting.

Each bariatric procedure is unique in its potential nutritional complications and endocrinologic effects, so it is important to take their differential mechanisms and effects into consideration, said Dr. Kaplan, a gastroenterologist and director of the Massachusetts General Hospital Weight Center, Boston.

The American Society of Nutrition and the European Society for Endocrinology supported the formulation of the guidelines. The American Gastroenterological Association has been invited to participate.

Virtually all of the advice is based on expert opinion because there is little high-level evidence, Dr. Kaplan said.

The guidelines advise clinicians to provide appropriate long-term dietary and behavioral management and to assess whether additional surgeries would provide greater long-term benefits, such as converting a laparoscopic adjustable gastric band to a Roux-en-Y gastric bypass

(RYGB), changing the length of an intestinal limb after RYGB, or adding a RYGB onto a sleeve gastrectomy.

The task force did not make specific recommendations for nutritional screening or supplement use, but advised that patients should eat 60-120 grams of protein per day to prevent the loss of lean body mass.

The draft guidelines advise long-term vitamin and mineral supplementation as needed, depending on the procedure, and periodic monitoring for micronutrient deficiencies in the first 2-3 weeks after surgery and for macronutrient deficiencies in the first several months.

Monitoring for signs of macronutrient deficiencies, such as hypoalbuminemia (which is associated with protein malnutrition) and ketosis, is important for patients who have undergone biliopancreatic diversion plus duodenal switch (BPD-DS), according to the guidelines.

But micronutrient deficiencies are far more common than macronutrient deficiencies in bariatric surgery patients, Dr. Kaplan said. Deficiencies in iron, vitamin B₁₂, calcium, and vitamin D occur most often with BPD-DS and RYGB. A deficiency in vitamin B₁ (thiamine) can be induced through excessive vomiting, which occurs most often with overadjusted gastric bands. Fat-soluble vitamin deficiencies develop most often with BPD-DS, but vitamin K deficiency is known to develop in some patients with RYGB. Folic acid deficiencies are not as common as they used to be after bariatric surgery because of wide use of multivitamins with folic acid.

The task force advised that the physician and nurse members of the patient's management team should be familiar with the management of type 1 and 2 diabetes

in the postoperative period. They also recommended that lipid abnormalities should be treated according to National Cholesterol Education Program guidelines.

In addition to weight loss, clinicians should shoot for reductions in hemoglobin A_{1c} to less than 7%, fasting blood glucose to 110 mg/dL or less, and postprandial blood glucose to 180 mg/dL or less.

Patients undergoing bypass operations should have calcium, phosphorus, and alkaline phosphatase levels measured every 6 months and dual-energy x-ray absorptiometry scans annually, as well as routine postoperative calcium and vitamin D supplementation.

For patients with frequent preoperative episodes of gout, the task force recommended prophylactic therapy because of an increased risk for disease flares in the postoperative period.

Postoperative constipation occurs much more often than does diarrhea in bariatric surgery patients, Dr. Kaplan said, so the guidelines recommend a low-quantity fluid diet in the immediate postoperative period with a gradual progression of food consistency over time.

The guidelines also advise periodic monitoring of liver enzymes. Postoperative hypoglycemia, which may occur through stimulation of pancreatic beta-cell function, needs to be carefully monitored as well.

Dr. Kaplan serves as the principal investigator for studies with Merck & Co., Johnson & Johnson, and GI Dynamics; as an advisory group member for Merck & Co., Johnson & Johnson, Stryker Development, and C.R. Bard; and as a scientific board member for Gelesis and GI Dynamics. ■

Sex Dysfunction Rate High In Bariatric Surgery Seekers

BY BRUCE JANCIN

GRAPEVINE, TEX. — The first structured study to examine sexual function in women seeking bariatric surgery indicates that this group has marked dysfunction.

In a series of 102 severely obese women seeking bariatric surgery, average scores on the Female Sexual Functioning Index (FSFI) were significantly lower than published norms for the general population and approached those seen in women with chronic pelvic pain, Dale S. Bond, Ph.D., said at the annual meeting of the American Society for Metabolic and Bariatric Surgery.

The FSFI asks respondents to answer 19 items on a scale of 0-5. The 19 items assess six domains of sexual functioning: desire, arousal, lubrication, orgasm, satisfaction, and pain.

Sixty percent of the bariatric surgery candidates had a FSFI score of 26 or less, indicating sexual dysfunction. The severely obese women scored significantly lower than did healthy controls in all six domains, according to Dr. Bond of the department of psychiatry and human behavior at Brown University, Providence, R.I.

"In large population-based studies using the FSFI, the prevalence of sexual dysfunction tends to be in the low 30s. And if you look at clinical populations—for example, women with chronic pelvic pain—the prevalence is more like 62%-67%," he noted.

This study highlights the importance of assessing sexual function in women who are candidates for bariatric surgery in



Preliminary evidence indicates that surgery may have a therapeutic effect on sexual dysfunction.

DR. BOND

order to identify those who may require further treatment, according to Dr. Bond.

The good news is that there is some preliminary evidence to indicate that bariatric surgery itself may have a therapeutic effect for women with sexual dysfunction.

He and his coinvestigators have begun a new study examining how the profound weight loss and metabolic changes often brought about by bariatric surgery affect impaired sexual function. ■

Type 2 Diabetes Remissions Persist After Half of Bariatric Surgeries

BY BRUCE JANCIN

GRAPEVINE, TEX. — Greater initial weight loss following surgery and the ability to keep much of that excess weight off over time distinguished patients who achieved long-term remission of type 2 diabetes after bariatric surgery.

Severely obese patients with type 2 diabetes had a 40% diabetes remission rate at 5 years after laparoscopic adjustable gastric banding, in one large retrospective study presented at the annual meeting of the American Society for Metabolic and Bariatric Surgery. In a second study, those who had gastric bypass surgery maintained a 57% diabetes remission rate at median of 8.6 years.

Samuel Sultan reported on 95 type 2 diabetic patients who underwent laparoscopic adjustable gastric banding (LAGB). They went from a mean preoperative body mass index of 46.3 kg/m² to a mean BMI of 35.0 kg/m² at 5 years, with a resultant mean 48% excess weight loss.

At 5 years follow-up, 40% of patients were off all diabetes medications and had a hemoglobin A_{1c} level below 6.0% or fasting blood glucose of less than 100 mg/dL. In 80% of patients, diabetes was either in remission or improved as defined by reduced need for diabetes medications and fasting blood glucose of 100-125 mg/dL, said Mr. Sultan, a medical student at New York University.

The 5-year excess weight loss in the group with long-term diabetes remission was 57%, compared with 38% in those with recurrence. There was a trend toward a higher remission rate in patients whose presurgical duration of di-

abetes was shorter: The remission group had a mean 4.7-year history of diabetes, whereas those not in remission had a mean 7.3-year history. Viewed another way, the 5-year remission rate in patients with less than a 7-year history of type 2 diabetes was 44%, compared with 27% in those with diabetes for more than 7 years.

Mean fasting blood glucose in the overall study population was 146 mg/dL preoperatively and 118.5 mg/dL at 5 years. Mean HbA_{1c} was 7.5% before LAGB and 6.6% after 5 years.

In a separate presentation, Dr. Silas M. Chikunguwo reported on 177 patients with type 2 diabetes who underwent open or laparoscopic gastric bypass for morbid obesity and were followed for a mean of 8.6 years and a maximum of 16 years. Their mean BMI went from 50 to 31 kg/m².

Postoperatively, 89% of patients had complete remission of their diabetes. The remission proved durable in 57%, said Dr. Chikunguwo of Virginia Commonwealth University in Richmond.

Factors associated with durable remissions included limb bypass length greater than 100 cm, male gender, younger age, greater mean percent excess weight loss, and less weight regain.

Another predictor of durable remission was less severe preoperative diabetes: The recurrence rate was 72% in patients on preoperative insulin, 34% in those on oral agents, and 24% in those on dietary control alone.

Dr. Chikunguwo and Mr. Sultan reported having no conflicts of interest, although Mr. Sultan noted that his coinvestigators serve as consultants to Allergan, which markets the LAP-BAND system. ■