Revision Rates Dim Enthusiasm for Roux-en-Y

The high rates suggest that the distal procedure is a poor first-line treatment for morbid obesity.

BY DIANA MAHONEY

FROM THE AMERICAN SOCIETY FOR METABOLIC AND BARIATRIC SURGERY ANNUAL MEETING

LAS VEGAS — Distal Roux-en-Y gastric bypass surgery led to excellent long-term weight loss in superobese and morbidly obese individuals, but researchers found a high incidence of protein-calorie malnutrition requiring revision, in a study of 49 patients.

Calling the revision rate "unacceptable," Dr. John M. Kellum said the distal procedure "should not be the primary operation for morbid or superobesity."

Data on long-term outcomes in American patients who have undergone distal gastric bypass are limited. Dr. Kellum and his colleagues at Virginia Commonwealth University in Richmond evaluated the long-term weight loss and metabolic outcomes of 49 individuals who underwent the procedure from 1985 to 1989 with follow-up of up to 24 years.

Of the 49 patients, 43 were classified as superobese (a body mass index greater than 50 kg/m^2), and 6 were morbidly obese (BMI greater than 40 kg/m^2) at the time of surgery. The mean preoperative BMI for the predominantly female study population was 58.9, and the mean age at surgery was 35.5 years, he reported at the meeting.

All procedures were performed using celiotomy and included a Roux-en-Y gastric bypass with a 30- to 50-mL proximal gastric pouch (stapled in continuity), a biliopancreatic limb extending from the ligament of Treitz to 250 cm from the ileocecal junction, and a common channel of 50-150 cm, Dr. Kellum explained. "It should be noted that, by 1988, surgeons were no longer doing 50-cm common channels because of the unacceptably high incidence of protein-calorie malnutrition," he said.

One patient died perioperatively of a massive pulmonary embolus. Of the remaining 48 patients, 21 underwent limb-lengthening revisions for protein-calorie malnutrition that was not improved by intermittent total parenteral nutrition (TPN), including 13 of the 23 patients with 50-cm common channels and 8 of the 25 patients with common channels greater than 100 cm, Dr. Kellum said, noting that revision rate difference between the two groups was statistically significant.

Of the 27 patients who did not undergo limb-lengthening revisions, 2 required hospitalization (including 1 who received TPN for 30 days) and 6 received intestinal tube feedings at home. Eight late deaths, from 6 to 19 years after surgery, occurred in this group, Dr. Kellum noted.

For 19 of the 27 patients who did not need revision surgery, more than 5 years of follow-up data showed "excellent long-term weight loss," with a median BMI of 34.2 at 10 years, said Dr. Kellum. However, the mean levels of serum albumin (3.6 g/dL), iron (24.4 U/dL), and 25-OH vitamin D (14.6 ng/mL) were "unacceptably low." Because of the small number of patients, the resolution of comorbidities over the long term couldn't be determined, he noted.

Compared in a nonrandomized fashion with the long-term outcomes of a similar group of patients who underwent long-limb gastric bypass starting in 1992, "there was superior weight loss but also a statistically higher incidence of iron deficiency anemia in the distal bypass group, and the rates of [decreased] albumin approached significance by the Student's *t*-test and reached significance using the Wright subtest," Dr. Kellum said (Ann. Surg. 1992;215:387-95). "Because of the albumin levels, serum calcium was also significantly lower in the distal bypass group."

'Distal Roux-en-Y gastric bypass should be reserved for those ... who have failed conventional proximal gastric bypass [and] who continue to have life-threatening medical conditions.'

Based on the findings, Dr. Kellum said, " this particular form of distal gastric bypass should not be used as a primary bariatric surgery for morbid or superobesity because of the high revision rate and the high incidence of late metabolic morbidity. Distal Roux-en-Y gastric bypass should be reserved for those patients who have failed conventional proximal gastric bypass [and] who continue to have life-threatening medical conditions."

Dr. Robert E. Brolin of New Jersey Bariatrics in Plainsboro, who served as the discussant, complimented Dr. Kellum "for reporting what can be perceived as negative results, so similar experiences are not repeated by other surgeons."

Dr. Brolin also asked Dr. Kellum if malabsorption—achieved either through a shorter biliopancreatic limb or the duodenal switch, which has a larger stomach capacity but similar malabsorptive characteristics to the procedure described—has any role in terms of long-term weight-loss maintenance in severe clinical obesity.

"I still don't think malabsorption should ever be the initial operation," Dr. Kellum replied. "I believe patients should be followed carefully by dietitians and should maintain regular exercise programs. Doing so leaves some responsibility on the patients rather than depending on the length of the common channel."

Dr. Kellum reported having no relevant financial conflicts. He noted that one of the study coauthors, Dr. Harvey Sugerman, is editor in chief of Surgery for Obesity and Related Diseases, the journal of the American Society for Metabolic annual meeting of theand Bariatric Surgery. ■

Banded Gastric Bypass May Improve Weight Loss Over Time

BY DIANA MAHONEY

FROM THE AMERICAN SOCIETY FOR METABOLIC AND BARIATRIC SURGERY ANNUAL MEETING

VITALS

Major Finding: Banded gastric bypass may lead to better weight-loss maintenance compared with the nonbanded procedure in superobese patients.

Data Source: A prospective, randomized, double-blind trial comparing outcomes of 90 obese patients who underwent the Capella banded gastric bypass procedure or the conventional Roux-en-Y gastric bypass.

Disclosures: Dr. Choi reported no conflicts. A coauthor disclosed ties with Ethicon EndoSurgery Inc., Covidien, and Olympus America Inc.

LAS VEGAS — Banded long-limb gastric bypass may result in greater weight loss over time in superobese patients than the traditional, nonbanded gastric bypass, a study has shown.

Data from a prospective, randomized trial comparing the long-term outcomes of the two procedures showed similar initial weight loss for patients in the two groups but a trend toward better maintenance of weight loss at 5 years in the banded group, reported Dr. Jenny Choi.

In addition, patients in the banded group were more likely to experience resolution of gastroesophageal reflux disease relative to those who underwent the less restrictive procedure, she said, noting that there were no differences in the degree of resolution of other comorbidities.

Of the 90 patients with body mass index greater than 50 kg/m^2 who were enrolled in the study from June 2001 through July 2005, 46 were randomly assigned to the undergo the banded gastric bypass—known as the Capella procedure—which involved the placement of a 1.5-by-5.5-cm polypropylene band around the proximal gastric pouch.

The remaining 44 patients underwent the conventional Roux-en-Y gastric bypass, Dr. Choi explained.

All of the surgeries were performed by the same surgeon, and there were no significant between-group differences in patient body mass index, age, or comorbidities at baseline, she said. Dr. Choi and her colleagues at Columbia University Medical Center in New York collected data on weight loss, improvement or resolution of comorbidities, and complications reported for all of the patients at 12, 24, 36, 48, and 60 months.

"At each of the time points, the banded group consistently had better weight loss, although the difference was not statistically significant," she said. At 12, 24, 26, and 48 months, the percentage of excess weight loss for the banded and nonbanded groups, respectively, was 63.9% and 56.9%; 65.9% and 59.8%; 63.5% and 55.8%; and 55.3% and 42.6%.

At 60 months, the between-group difference in percentage of excess weight lost (55.4% vs. 47.5%) approached but did not reach statistical significance in the banded group compared with the nonbanded group.

The number of patients who reached a body mass index of less than 35 kg/m^2 was higher in the banded group, at 49%, than the 37% observed in the nonbanded group, Dr. Choi noted.

Additionally, "the failure rate [defined as less than 50% of excess weight loss] was 10% in the banded group, compared with 15.7% in the nonbanded group," she said.

With respect to peak weight loss, weight regain began at 18 months in the nonbanded group and at 24 months in the banded group, said Dr. Choi, who noted a trend toward weight regain in both groups at the 5-year follow-up.

No patient in either of the study groups died, and there were no significant differences between groups in the rates of postoperative complications, Dr. Choi reported.

There were no cases of band erosion or slippage, and although the banded group reported more postoperative emesis and food intolerance, "all were treated conservatively and did not require invasive intervention," she said.

Although the power of the study's statistical analysis was limited by its small size, and 5-year follow-up data were only available for approximately 25% of the overall study population, the findings suggest that the banded procedure is a reasonable therapeutic option for the superobese population, and it may result in better maintenance of weight loss over time, said Dr. Choi.

"Further follow-up of a larger cohort is needed to better assess the long-term outcomes of the banded and nonbanded procedures," she said. ■