

# Bariatric Mortality Not Higher for Elderly

BY HEIDI SPLETE

FROM THE ANNUAL DIGESTIVE DISEASE WEEK

Older patients undergoing bariatric surgery had longer hospital stays, but no increased risk of death or major adverse events at 30 days, according to a study of more than 48,000 adults.

Patient age older than 65 years is not a contraindication to bariatric surgery, said Dr. Robert B. Dorman at the meeting. Previous studies in older adults have been limited to Medicare

The percentage of bariatric surgery patients aged at least 65 years increased from 1.9% in 2005 to 4.8% in 2009, a significant change. Among all patients, 72 deaths occurred during the study period, and 8 of these occurred in patients older than 65.

The 30-day mortality did not differ significantly by age group and was under 1% for all age ranges. Specifically, for patients aged 35-49 years, 50-64 years, and 65 years and older mortality was 0.12%, 0.21%, and 0.40%, respectively. A multivariate analysis showed a trend for advancing age as a predictor of mortality, but this was not statistically significant, the researchers noted.

However, age of 65 years or older was a significant predictor of prolonged length of stay for both open and laparoscopic

**VITALS** **Major Finding:** The 30-day mortality did not differ significantly by age group and was under 1% for all age ranges.

**Data Source:** A multihospital study of 48,378 adults with a body mass index of 35 kg/m<sup>2</sup> or higher who underwent bariatric surgery between 2005 and 2009.

**Disclosures:** Dr. Dorman had no financial conflicts to disclose.

patients and have not included laparoscopic procedures, he noted.

In this multihospital study, using American College of Surgeons National Surgical Quality Improvement Program, Dr. Dorman of the University of Minnesota, Minneapolis, and his colleagues analyzed data from 48,378 adults with a body mass index of 35 kg/m<sup>2</sup> or higher who underwent bariatric surgery during 2005-2009.

The types of surgery included open and laparoscopic Roux-en-Y gastric bypass, open duodenal switch, laparoscopic adjustable gastric banding, and vertical banded gastroplasty.

procedures. In addition, older age alone was not a significant predictor of major adverse events for either procedure type. The significant predictors of major adverse events included BMI of 55 or higher, cardiac comorbidities, severe ASA [American Society of Anesthesiologists] score, albumin levels less than 3 g/dL, and creatinine levels greater than 1.5 mg/dL.

"Once corroborated, these results [will] provide important information to patients, surgeons, hospitals, and payers prior to performing bariatric surgery in older persons with obesity," Dr. Dorman said. ■

# Gastric Bypass Linked to Long-Term Fracture Risk

BY KERRI WACHTER

FROM THE ANNUAL MEETING OF THE ENDOCRINE SOCIETY

BOSTON – Gastric bypass surgery appears to be linked to increased long-term fracture risk, based on a retrospective study of 258 bariatric surgery patients.

"Bariatric surgery results in an increased risk of fractures. We think the important take-home point here is that we need to start looking at the skeleton as one of those key areas for long-term follow-up," Dr. Kurt Kennel said at the meeting.

The fracture risk for bariatric surgery patients in this study was 2.3 times greater than that for individuals who did not have bariatric surgery, reported Dr. Kennel of the endocrinology department at the Mayo Clinic in Rochester, Minn.

The findings are particularly important given the increasing number of severely obese individuals who are turning to bariatric surgery as a treatment option.

"We have questions about what this means in the long term," said Dr. Kennel. In this study, the mean time to first fracture was 6 years, with a mean follow-up of 9 years. However, in much of the current literature on bariatric surgery, patients are followed only 1-2 years and the only issues addressed are related to surgery or weight.

"Some issues – like bone, for example – may not show the manifestations of these effects for many years and therefore we may be missing some of those effects," said Dr. Kennel.

The researchers used data from the Rochester Epidemiology Project to conduct a retrospective study of fracture incidence. The REP Project connects medical records from the Mayo Clinic, local hospitals, and local private practices.

The study included data from 258 pa-

VITALS

**Major Finding:** The fracture risk for gastric bypass surgery patients was 2.3-fold greater than that for the general population.

**Data Source:** A retrospective study of 258 patients who underwent bariatric surgery between 1985 and 2004.

**Disclosures:** Dr. Kennel reported that he and his coinvestigators have no significant financial relationships to report.

tients, who underwent a first bariatric surgery between 1985 and 2004 at the Mayo Clinic. Fractures were expressed in standardized incidence ratios that compare the number of observed fractures to the number of expected fractures by skeletal site.

Expected fracture data were derived by applying age- and sex-specific incidence rates from the local population to the age- and sex-specific person-years of follow-up.

The average age of the bariatric surgery patients was 44 years and most (83%) were female. Following bariatric surgery, 79 patients experienced 132 fractures. Bariatric surgery patients had an increased risk of fracture at nearly all of the skeletal sites studied, not just in weight-bearing bones.

Also of note, 94% of these patients had undergone gastric bypass procedures. Dr. Kennel attributed this to the time frame used in the study. Other bariatric surgical procedures – such as adjustable gastric banding and sleeve gastrectomy – are more recent developments. Dr. Kennel acknowledged that different bariatric procedures might yield different fracture risks. For now though, it's unclear what is driving the fracture increase in these patients. ■

# Gastric Bypass Fails to Prolong Life in Older, Obese Patients

BY M. ALEXANDER OTTO

FROM THE ANNUAL RESEARCH MEETING OF ACADEMYHEALTH

SEATTLE – Gastric bypass did not extend the lives of older, severely obese patients in a Department of Veterans Affairs Study.

Though bariatric surgery is often assumed to extend lives, "physicians should advise patients such as those examined here that there is no survival benefit at nearly 7 years, and the longer-term survival benefit is still unknown," lead author Matthew L. Maciejewski, Ph.D., of Duke University and the Center for Health Services Research in Primary Care at the Durham VA Medical Center said at the meeting.

He and his colleagues compared 850 VA Roux-en-Y gastric

VITALS

**Major Finding:** Gastric bypass provided no survival benefit to older, obese patients followed for a mean of 6.7 years after their operations, when compared to propensity-matched controls (HR, 0.83; 95% CI, 0.61-1.14).

**Data Source:** Retrospective cohort study of 850 participants in a Veterans Affairs Study who had bariatric surgery in 2000-2006 and 41,244 nonsurgical controls.

**Disclosures:** Dr. Maciejewski is a paid consultant to Takeda Pharmaceuticals and Novartis and owns stock in Amgen. Dr. Livingston is a paid consultant to Texas Instruments.

bypass patients with 41,244 nonsurgical controls. The operations were conducted between 2000 and 2006. The average age in the bypass group was 50 years and average body mass index was 47 kg/m<sup>2</sup>; 74% were men. The average age in the control group was 55, and average BMI was 42 kg/m<sup>2</sup>; 92% were men.

At first glance, bypass patients appeared to do better after a mean follow-up of 6.7 years. Al-

though 6.8% had died after 6 years, for instance, 15.2% had died in the control group (hazard ratio, 0.64; 95% confidence interval, 0.51-0.80).

The apparent advantage, however, diminished after covariate adjustment (HR, 0.80; 95% CI, 0.63-0.99), and vanished when patients were propensity matched one to one with the most similar controls based on age, sex, race, marital status,

BMI, diagnosis related groups (DRG), and other factors (HR, 0.83; 95% CI, 0.61-1.14). When the investigators further adjusted for the start time, the advantage disappeared (HR, 0.94, 95% CI, 0.64-1.39).

In short, "the use of bariatric surgery, compared with usual care, was not associated with decreased mortality," Dr. Maciejewski and his colleagues concluded (JAMA 2011 [doi:10.1001/jama.2011.817]).

The results mean "you should not select people [for surgery] thinking they are going to live longer," said coauthor Dr. Edward Livingston, chair of the GI and endocrine surgery division at the University of Texas Southwestern Medical School at Dallas.

Selection instead should be based on immediate concerns. Out-of-control diabetes, a pa-

tient too big to get around, sleep apnea, failing joints, and other weight-related problems make "surgery a reasonable option," said Dr. Livingston.

The findings contradict previous studies suggesting a survival benefit for bariatric surgery, but those studies were largely of younger women with inherently lower obesity-related mortality risks, or foreign studies that don't translate well to the United States, he said.

In contrast, the veterans in the study – older, obese, and comorbid – "die at a very high rate, so we expected [surgery to show] a big benefit in a short amount of time. The belief is if you take people that are really sick with diabetes, hypertension, and sleep apnea, and get a lot of weight off them, they live longer. We didn't see it." ■