ASMBS American Society for Metabolic & Bariatric Surgery

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NEW STUDY IDENTIFIES KEY RISK FACTORS FOR BARIATRIC SURGERY

Researchers Say Knowing Risks Can Further Increase Safety and Influence Choice of Procedure

ORLANDO, FL – June 15, 2011 – University of California at Irvine (UC Irvine) researchers reviewed data from more than 100,000 bariatric surgery patients and discovered the top six risk factors that could help doctors and patients predict, evaluate, reduce or avoid in-hospital mortality after weight loss surgery. The findings* were presented here at the 28th Annual Meeting of the American Society for Metabolic & Bariatric Surgery (ASMBS).

The risk factors include the type of weight loss operation (gastric bypass or gastric band), surgical technique (open or laparoscopic), patient gender, type of insurance (private or Medicare), age and the presence of Type 2 diabetes. Researchers say one or more of these risk factors may increase the risk of death before discharge from the hospital.

"Bariatric surgery is safer than it has ever been, but there may be more we can do to make it even safer and improve the odds of survival for high risk patients," said Ninh T. Nguyen, MD, the study's primary author and Chief of the Division of Gastrointestinal Surgery at UC Irvine Medical Center. "Doctors can use these risk factors to help in pre-operative planning and to help patients better understand his or her individual risk."

Researchers analyzed hospital discharge data from the University HealthSystem Consortium (UHC) database where they identified 105,287 patients who underwent bariatric surgery between 2002 and 2009 at academic medical centers in the United States. More than 80 percent of the patients were female and nearly three-quarters were Caucasian. The type of operations included laparoscopic gastric bypass (45%), open gastric bypass (41%) and laparoscopic adjustable gastric banding (14%). The overall in-hospital mortality rate was 0.17 percent, which was the primary outcome examined in the study.

For each top risk factor an adjusted odds ratio (AOR) was calculated using statistical analyses to determine its individual and relative impact on in-patient mortality. The higher the AOR, the greater the odds of it having an impact on patients.

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The study showed a person who had an open, rather than a laparoscopic, weight loss operation faced nearly five times (AOR 4.8) the risk of in-hospital mortality. The AOR was 5.8 if the patient had a gastric bypass versus non-bypass patients, 3.2 if the patient was male, 3.0 if the patient had Medicare coverage rather than private insurance, 1.9 if the patient was age 60 or over and 1.6 if Type 2 diabetes was present.

"It's important to remember that despite these risk factors, we are still talking about highly effective and safe operations that result in significant weight loss and improvement or resolution of obesity-related diseases. Morbid obesity itself is a major risk factor for premature death, and in fact may be riskier without intervention than the surgery itself," added Dr. Nguyen. "The data shows laparoscopic bariatric surgery has become no riskier than gallbladder or hip replacement surgery."

Previous studies have shown that the risks of living with morbid obesity outweigh the risks of bariatric surgery[1], and that patients may improve life expectancy by 89 percent[2] and reduce their risk of premature death by 30 to 40 percent[3,4]after bariatric surgery.

Dr. Nguyen and his colleagues also identified a simple risk classification system that aims to enable clinicians to predict individual patient risk of mortality that they can use to strategize a preoperative plan that may reduce surgical risk. In this bariatric mortality risk classification, patients can be grouped according to a score that is calculated based on the number of points assigned to their individual risk factors (I, II, III, or IV). The lowest risk group (class I) has an in-hospital mortality of 0.10 percent while the highest risk group (class IV) has a mortality of 0.70 percent.

Bariatric surgery has been shown to be the most effective and long lasting treatment for morbid obesity and many related conditions.[5] People with morbid obesity have BMI of 40 or more, or BMI of 35 or more with an obesity-related disease such as Type 2 diabetes, heart disease or sleep apnea. Recently the FDA approved the use of an adjustable gastric band for BMI 30 and above, recognizing that there is an increase in mortality and medical complications of obesity at even this level of obesity.

According to the ASMBS, more than 15 million Americans have morbid obesity. Studies have shown patients may lose 30 to 50 percent of their excess weight 6 months after surgery and 77 percent of their excess weight as early as one year after surgery.[6]

The most common methods of bariatric surgery are laparoscopic gastric bypass and laparoscopic adjustable gastric banding (LAGB). Bariatric surgery limits the amount of food the stomach can hold, and/or limits the amount of calories absorbed, by surgically reducing the stomach's capacity to a few ounces.

The federal government estimated that in 2008, annual obesity-related health spending reached $147 billion,[7] double what it was a decade ago, and projects spending to rise to $344 billion each year by 2018.[8] The Agency for Healthcare Research and Quality (AHRQ) reported significant improvements in the safety of bariatric surgery due in large part to improved laparoscopic techniques and the advent of bariatric surgical centers of excellence. The overall risk of death from bariatric surgery is about 0.1 percent[9] and the risk of major complications is about 4 percent.[10]

In addition to Dr. Nguyen, study authors include Brian Nguyen BS, Brian Smith MD, Xuan-Mai T. Nguyen PhD, Christian Elliott BS, Kevin Reavis MD, and Samuel Hohmann PhD.

About the ASMBS

The ASMBS is the largest organization for bariatric surgeons in the world. It is a non-profit organization that works to advance the art and science of bariatric surgery and is committed to educating medical professionals and the lay public about bariatric surgery as an option for the treatment of morbid obesity, as well as the associated risks and benefits. It encourages its members to investigate and discover new advances in bariatric surgery, while maintaining a steady exchange of experiences and ideas that may lead to improved surgical outcomes for morbidly obese patients. For more information about the ASMBS, visit www.asmbs.org

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***PL-108 - ANALYSIS OF FACTORS PREDICTIVE OF MORTALITY IN BARIATRIC SURGERY**

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