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NEW STUDY POINTS TO POSSIBLE ROLE FOR ROBOTICS IN BARIATRIC SURGERY
Results Show Low Short-Term Complication Rate and Zero Mortality

SAN DIEGO, CA – JUNE 22, 2012 – Robotic-assisted laparoscopic gastric bypass surgery may lead to fewer early complications and deaths, according to a new study* presented here at the 29th Annual Meeting of the American Society for Metabolic & Bariatric Surgery (ASMBS).

Researchers from high volume bariatric centers in Texas, Maine and Florida report a major complication rate of three-tenths of one percent (0.3%) and no deaths within 30 days, after 1,695 consecutive robotic-assisted laparoscopic gastric bypass surgeries. Surgeries were performed between 2003 and 2011 on patients with an average body mass index (BMI) of 48 or more.

“Robotic surgery is now commonly used in prostate and other surgeries, but not in weight loss operations,” said Erik Wilson, MD, lead study author and metabolic and bariatric surgeon at the University of Texas Health Science Center at Houston (UT Health) and Memorial Hermann-Texas Medical Center, where 578 of the surgeries were performed. “This study suggests, with robotics, we can take an already extremely safe operation and make it even safer, and perhaps more cost effective with the reduction we’re seeing in complications.”

The study found both the 30-day mortality rate (zero) and incidence of a gastrointestinal leak or abscess (0.3%), a serious complication, were less for robotic-assisted surgery than traditional laparoscopic surgery, which has a 30-day mortality rate of two-tenths of one percent (0.2%) and a major complication rate of 3.6 percent.¹ Other results in terms of weight loss and disease improvement were similar. Dr. Wilson says that the nearly 1,700 robotic-assisted gastric bypass surgeries analyzed in the study is the largest series of robotic bariatric cases ever reported.

Other 30-day results include 81 readmissions (4.8%) and 46 reoperations (2.7%) for bowel obstruction (17), infection (5), bleeding (18), and negative exploration (6). Fourteen patients (0.8%) needed transfusions and four patients (0.2%) had early strictures diagnosed. The average hospital stay was 2.2 days.

In robotic-assisted gastric bypass surgery, the surgeon sits away from the operating table at a console, where he or she controls and manipulates two robotic arms to perform surgery. One arm operates a laparoscopic camera that provides a three-dimensional view inside the body and the other arm functions as the surgeon’s own hand to reduce the size of the stomach and reroute the digestive system.

“The robot allows us to work in tighter spaces within the body and may provide more surgical precision, which may have an impact on complications,” Dr. Wilson added. “This reduction or avoidance of complications may offset the initial investment in the robotic system.”

In addition to Dr. Wilson, study co-authors include Keith C. Kim, MD of Celebration Health Florida Hospital, and Michelle Toder, MD, of Eastern Maine Medical Center.

About Obesity and Metabolic and Bariatric Surgery

Obesity is one of the greatest public health and economic threats facing the United States.² Approximately 72 million Americans are obese³ and, according to the ASMBS, about 18 million have morbid obesity. Obese individuals with a BMI greater than 30 have a 50 to 100 percent increased risk of premature death compared to healthy weight individuals as well as an increased risk of developing more than 40 obesity-related diseases and conditions including Type 2 diabetes, heart disease and cancer.^{4,5} The federal government estimated that in 2008, annual obesity-related health spending reached \$147 billion,⁶ double what it was a decade ago, and projects spending to rise to \$344 billion each year by 2018.⁷

Metabolic/bariatric surgery has been shown to be the most effective and long lasting treatment for morbid obesity and many related conditions and results in significant weight loss.^{8,9,10} In the United States, about 200,000 adults have metabolic/bariatric surgery each year.¹¹ The Agency for Healthcare Research and Quality (AHRQ) reported significant improvements in the safety of metabolic/bariatric surgery due in large part to improved laparoscopic techniques.¹² The risk of death is about 0.1 percent¹³ and the overall likelihood of major complications is about 4 percent.¹⁴

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, visit www.asmb.org.

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***PL-134: Favorable Early Complications of Robotic Assisted Gastric Bypass from Three High Volume Centers: 1695 Consecutive Cases**

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REFERENCES

- ¹Birkmeyer, N. J., Dimick, J. B., Share, D., et al. (2010). Hospital complication rates with bariatric surgery in Michigan. *Journal of the American Medical Association*. <http://jama.jamanetwork.com/article.aspx?volume=304&issue=4&page=435>
- ²Flegal, K. M., Carroll, M. D., Ogden, C. L., et al. (2002). Prevalence and trends in obesity among US adults, 1999-2000. *Journal of the American Medical Association*. 288(14) pp. 1723-1727. Accessed March 2012 from <http://aspe.hhs.gov/health/prevention/>
- ³Chronic Disease Prevention and Health Promotion – Centers for Disease Control and Prevention. (2011). Obesity; halting the epidemic by making health easier at a glance 2011. Accessed February 2012 from <http://www.cdc.gov/chronicdisease/resources/publications/AAG/obesity.htm>
- ⁴Office of the Surgeon General – U.S. Department of Health and Human Services. Overweight and obesity: health consequences. Accessed March 2012 from http://www.surgeongeneral.gov/topics/obesity/calltoaction/fact_consequences.html
- ⁵Kaplan, L. M. (2003). Body weight regulation and obesity. *Journal of Gastrointestinal Surgery*. 7(4) pp. 443-51. Doi:10.1016/S1091-255X(03)00047-7. Accessed March 2012 from <http://edulife.com.br/dados%5CArtigos%5CNutricao%5CObesidade%20e%20Sindrome%20Metabolica%5CBody%20weight%20regulation%20and%20obesity.pdf>
- ⁶Finkelstein, E. A., Trogon, J. G., Cohen, J. W., et al. (2009). Annual medical spending attributable to obesity: payer- and service-specific estimates. *Health Affairs*. 28(5) pp. w822-w831. Accessed February 2012 from <http://www.cdc.gov/obesity/causes/economics.html>
- ⁷Thorpe, K (2009). The future costs of obesity: national and state estimates of the impact of obesity on direct health care expenses. *America's Health Rankings*. Accessed June 2012 from <http://www.fightchronicdisease.org/sites/fightchronicdisease.org/files/docs/CostofObesityReport-FINAL.pdf>
- ⁸Weiner, R. A. (2010). Indications and principles of metabolic surgery. *U.S. National Library of Medicine*. 81(4) pp.379-394.
- ⁹Chikunguw, S., Patricia, W., Dodson, J. G., et al. (2009). Durable resolution of diabetes after roux-en-y gastric bypass associated with maintenance of weight loss. *Surgery for Obesity and Related Diseases*. 5(3) p. S1
- ¹⁰Torquati, A., Wright, K., Melvin, W., et al. (2007). Effect of gastric bypass operation on framingham and actual risk of cardiovascular events in class II to III obesity. *Journal of the American College of Surgeons*. 204(5) pp. 776-782. Accessed March 2012 from <http://www.ncbi.nlm.nih.gov/pubmed/17481482>
- ¹¹American Society for Metabolic & Bariatric Surgery. (2009). All estimates are based on surveys with ASMBS membership and bariatric surgery industry reports.
- ¹²Poirier, P., Cornier, M. A., Mazzone, T., et al. (2011). Bariatric surgery and cardiovascular risk factors. *Circulation: Journal of the American Heart Association*. 123 pp. 1-19. Accessed March 2012 from <http://circ.ahajournals.org/content/123/15/1683.full.pdf>
- ¹³Agency for Healthcare Research and Quality (AHRQ). Statistical Brief #23. Bariatric Surgery Utilization and Outcomes in 1998 and 2004. Jan. 2007.
- ¹⁴Flum, D. R. et al. (2009). Perioperative safety in the longitudinal assessment of bariatric surgery. *New England Journal of Medicine*. 361 pp.445-454. Accessed June 2012 from <http://content.nejm.org/cgi/content/full/361/5/445>