ASMBS American Society for Metabolic & Bariatric Surgery

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CANCER RISK DROPS IN HALF WITH OVER 20% WEIGHT LOSS AFTER BARIATRIC SURGERY

New Study Compares Differences in Cancer Risk Reduction Among Weight-Loss Surgery Patients

LAS VEGAS – Nov. 5, 2019 – Patients with severe obesity who had bariatric or weight-loss surgery and lost more than 20% of their total weight were 50% less likely to develop cancer compared to patients who did not have as much weight loss after surgery, according to a new study* presented today by Oregon Health & Science University researchers at the 36th American Society for Metabolic and Bariatric Surgery (ASMBS) Annual Meeting at ObesityWeek 2019.

Researchers reviewed data from 2,107 adults who underwent bariatric surgery, either laparoscopic gastric bypass or gastric banding, at hospitals participating in the LABS-2 (Longitudinal Assessment of Bariatric Surgery 2) study. The average age of patients was 46 years old, 79% were female, about a third had type 2 diabetes and 44% had a history of smoking before surgery. Weight and cancer serum biomarkers (proteins detected in the blood, urine or body tissues) were measured preoperatively and one year after surgery, as predictors for incident cancer after adjusting for age, sex, education, and smoking history.

While previous studies have shown that bariatric surgery reduces the risk of certain cancers compared to patients who do not have the surgery, this study compared the differences in risk based on the amount of weight lost after bariatric surgery.

Researchers found having a body mass index (BMI) of 30 or more one year after bariatric surgery was suggestive of a 60% higher risk of cancer compared to having a BMI under 30. About 6.2% of those that lost less than 20% of their body weight reported a cancer diagnosis by year 7, compared to about 3.6% of patients who lost 20% or more of their total body weight – representing a 50% reduction. Overall, the average BMI at 12-months after surgery was 33 and the average excess weight loss was 58%.

The most common cancer type was breast cancer (34%), followed by thyroid (8.5%), melanoma (7%), colon (6%), kidney (6%), uterine (5%), and lung (4%). The incidence of bladder, cervical, prostate, brain, endometrial, esophagus, stomach, and testicular was less than 3%.

“Our data suggests that there is a weight loss threshold, that if achieved, significantly reduces risk of cancer in post-bariatric surgery patients,” said lead study author Andrea M. Stroud, MD, MS, Assistant Professor of Surgery, Division of Bariatric Surgery, Oregon Health & Science University School of Medicine in Portland. “So, there seems to be a variability in the protective effect of bariatric surgery that is dependent on the degree of weight loss.”

Researchers also found that metabolic changes after bariatric surgery contributed to lowering the risk of cancer. For each 20% reduction in leptin, a hormone released from the fat cells located in adipose tissue, there was a 20% reduction in cancer incidence. Decreases in diabetes-related fasting glucose, proinsulin, insulin, and C-peptide levels and increased levels of ghrelin, the hunger hormone, were also associated with reduced cancer risk.

According to the American Society of Clinical Oncology (ASCO), obesity is a major unrecognized risk factor for cancer. There is increasing evidence linking it to several cancers including those of the breast, prostate and colon. Obesity has also been associated with an increased risk of recurrence and mortality in patients with cancer.[1]

"For people with severe obesity, bariatric surgery is the most effective treatment available and we're seeing more and more evidence that it's also an effective way to prevent a number of diseases including cancer, heart disease, and diabetes," said Eric J. DeMaria, MD, President, ASMBS and Professor and Chief, Division of General/Bariatric Surgery, Brody School of Medicine, East Carolina University Greenville, NC, who was not involved in the study.

Obesity is linked to more than 40 diseases including type 2 diabetes, hypertension, heart disease, stroke, sleep apnea, osteoarthritis and at least 13 different types of cancer.[2,3,4] The U.S. Centers of Disease Control and Prevention (CDC) reports 93.3 million or 39.8 percent of adults in the U.S. had obesity in 2015-2016.[5] The ASMBS estimates about 24 million have severe obesity, which for adults means a BMI of 35 or more with an obesity-related condition like diabetes or a BMI of 40 or more.

In 2017, 228,000 bariatric and metabolic procedures were performed in the U.S., which is less than 1 percent of the population with severe obesity. Metabolic/bariatric surgery has been shown to be the most effective and long-lasting treatment for severe obesity, resulting in significant weight loss and resolution or improvements in diabetes, heart disease, sleep apnea and many other obesity related diseases.[6] The safety profile of laparoscopic bariatric surgery is comparable to some of the safest and most commonly performed surgeries in the U.S., including gallbladder surgery, appendectomy and knee replacement.[7]

About the ASMBS

The ASMBS is the largest organization for bariatric surgeons in the nation. 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 severe 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 patients with severe obesity. For more information, visit www.asmbs.org.

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Association between weight loss and serum biomarkers with risk of incident cancer in the Longitudinal Assessment of Bariatric Surgery cohort
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1 https://ascopubs.org/doi/full/10.1200/JCO.2014.58.4680
2 The Effectiveness and Risks of Bariatric Surgery: An Updated Systematic Review and Meta-analysis, 2003-2012. Accessed from: https://jamanetwork.com/journals/jamasurgery/fullarticle/1790378
3 Steele CB, Thomas CC, Henley SJ, et al. *Vital Signs*: Trends in Incidence of Cancers Associated with Overweight and Obesity — United States, 2005–2014. MMWR Morb Mortal Wkly Rep 2017;66:1052–1058. DOI: http://dx.doi.org/10.15585/mmwr.mm6639e1
4 Centers for Disease Control and Prevention. (2015) The Health Effects of Overweight and Obesity. Accessed from: https://www.cdc.gov/healthyweight/effects/index.html
5 https://www.cdc.gov/obesity/data/adult.html
6 Weiner, R. A., et al. (2010). Indications and principles of metabolic surgery. U.S. National Library of Medicine. 81(4) pp.379-394. https://www.ncbi.nlm.nih.gov/pubmed/20361370
7 Gastric Bypass is as Safe as Commonly Performed Surgeries. Health Essentials. Cleveland Clinic. Nov. 6, 2014. Accessed October 2017 https://health.clevelandclinic.org/2014/11/gastric-bypass-is-as-safe-as-commonly-performed-surgeries/