

High Cholesterol – hyperlipidemia resolution - study

SURGERY TO TREAT HIGH CHOLESTEROL?

New Study Shows Gastric Bypass Can Normalize Cholesterol Levels Within Six Months And Keep High Cholesterol Away For at Least Six Years

LAS VEGAS, NV – JUNE 25, 2010 – Gastric bypass surgery can help lower cholesterol and improve the ratio of total cholesterol to HDL (good) cholesterol, according to a new study presented here at the 27th Annual Meeting of the American Society for Metabolic and Bariatric Surgery (ASMBS).

The study reported that within just six months of gastric bypass, nearly all patients with high cholesterol had normal blood cholesterol levels and 91 percent of patients who were on statins or other lipid-lowering drugs before surgery no longer needed them. Even after six years, all patients were off medication. Patients, who before surgery had an average body mass index (BMI) of 50, lost nearly 40 percent of their body mass index or 80% of their excess body weight.

Researchers at University of Iowa Hospital and Clinics followed 248 laparoscopic gastric bypass patients for six years. Ninety-four had hyperlipidemia, an elevation of lipids (fats) including cholesterol and triglycerides in the bloodstream, and 23 were being treated with lipid-lowering medications. Hyperlipidemia is a risk factor for coronary artery disease.

“Patients with morbid obesity experience resolution of hyperlipidemia in a very short period of time following Roux-en-Y gastric bypass surgery, further reducing the risk of developing heart disease in this high-risk population,” said Mohammad Jamal, MD, lead study author and clinical assistant professor at the University of Iowa Hospitals and Clinics. “Bariatric surgery seems to give patients the jumpstart they need to maintain enough weight loss over the long term to keep hyperlipidemia at bay.”

Within six months, patients showed nearly a 20 percent decline in total cholesterol levels (220 to 179 mg/dL), a more than 40 percent decline in triglyceride levels (212 to 128 mg/dL) and a more than 20 percent decline in LDL (bad) cholesterol levels (135 to 106 mg/dL). These levels remained virtually unchanged for six years, the duration of the study. However, by year six, HDL (good) cholesterol levels had increased by more than 10 percent (51 to 57 mg/dL) and the ratio of total cholesterol to HDL went from 4.3 to 2.8. A lower ratio indicates a lower risk for coronary artery disease.

According to the American Heart Association and the National Cholesterol Education Program guidelines, desirable lipid levels are below 200 mg/dL for total cholesterol, about 100 mg/dL for LDL cholesterol and less than 150 mg/dL for triglycerides. An HDL cholesterol level of 60 mg/dL and above is considered protective against heart disease.

Dr. Jamal added that more research is required to determine if factors other than weight loss, including possible hormonal changes, contribute to the resolution of hyperlipidemia. People who are morbidly obese are generally 100 or more pounds overweight, have a BMI of 40 or more, or a BMI of 35 or more with an obesity-related disease, such as Type 2 diabetes, hypertension, coronary artery disease or sleep apnea. According to the ASMBS, more than 15 million Americans are considered morbidly obese and in 2009 an estimated 220,000 people had some form of bariatric surgery. The most common methods of bariatric surgery are laparoscopic Roux-en-Y gastric bypass and laparoscopic adjustable gastric banding.

In addition to Dr. Jamal, co-authors of the study were Isaac Samuel, MD, Robert Wegner, MD, and Debi Heitshusen, RN, of the University of Iowa Hospitals and Clinics, Iowa.

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.asmb.org.

PL-210: Resolution Of Hyperlipidemia Follows Surgical Weight Loss In Patients Undergoing Gastric Bypass Surgery: A Six Year Analysis Of Data. Mohammad Jamal, MD; Isaac Samuel, MD; Robert Wegner, MD; Debi Heitshusen, RN, BSN, CBN; Surgery, University of Iowa Hospitals and Clinics, Iowa City, IA 1 American Heart Association. "Cholesterol Levels." [Cited May 2010]. Available from: <http://www.americanheart.org/presenter.jhtml?identifier=4500>