Bariatric surgery and diabetes: The focus of future research

By ACSH Staff — October 2, 2014

The benefits of bariatric surgery for weight loss and remission of type 2 diabetes have been studied extensively. However, questions remain as to the long-term effects of this type of surgery in terms of weight loss and metabolic conditions. The National Institute of Diabetes and Digestive and Kidney Diseases and the Division of Cardiovascular Sciences at the National Heart, Lung, and Blood Institute conducted a workshop to determine the areas on which new research should focus.

The major finding of this undertaking is that future research should focus on the long-term (10+ years) outcomes of bariatric surgery. Some observational studies, such as the Swedish Obese Subjects Study (SOS) and the Longitudinal Assessment of Bariatric Surgery (LABS) in 10 centers across the United States, answer questions about the sustainability of weight-loss, comorbidity responses and complications following the surgery. The SOS study found that bariatric surgery was associated with more frequent diabetes remission and fewer complications as compared to those who had not had surgery after 18 years of follow-up. The LABS study found that bariatric surgery resulted in significant weight-loss as well as remission from diabetes and hypertension at three-years follow-up.

However, the problem with such observational studies is that follow-up is often incomplete. Furthermore, response to such weight-loss interventions is often varied, and the workshop participants determined that research must focus on this variability in the long-term using large study populations, especially focusing on responses related to diabetes, hypertension, dyslipidemia, obstructive sleep apnea, and psychological and psychosocial issues after surgery. The gastrointestinal anatomy is altered during surgery, and complications due to this alteration may not be seen for many years following the surgery.

Researchers conclude: The substantial resources required for a clinical trial large enough with enough follow-up to address important research questions may be impractical, so extending follow-up of well-characterized and established cohorts, potentially with linkage to other data resources, may be the best hope to obtain the information needed to address long-term risks and benefits of
ACSH’s Ariel Savransky says, Research has clearly shown that there are benefits from bariatric surgery in terms of weight loss and remission of type 2 diabetes. This is especially important given that 29 million people in the United States have diabetes and more than one-third of US adults are obese. However, it is important to know the long-term implications of this surgery so that physicians can counsel patients to ensure that these benefits last long after the surgery.