Weight-loss surgery may help prevent heart rhythm disorder

May 8 2014, by Maureen Salamon, Healthday Reporter

So-called 'bariatric' procedures appear to cut risk of atrial fibrillation, researchers report.

(HealthDay)—Weight-loss surgery not only helps obese people drop pounds, but it may also prevent the dangerous heart rhythm disorder known as atrial fibrillation, according to new research.

Scientists from the Mayo Clinic found that significantly fewer patients who underwent weight-loss surgery, also known as "bariatric" surgery, developed atrial fibrillation—a rapid and irregular heartbeat—than those who didn't have weight-loss surgery. Atrial fibrillation affects more than 2.7 million American adults.

Common types of weight-loss surgery include the gastric band, in which a band is placed to create a small stomach pouch, and gastric bypass, which allows food to bypass parts of the stomach.

The study is the first to demonstrate a relationship between bariatric surgery and lower rates of atrial fibrillation in a large patient sample. Weight-loss surgery has already been shown in prior research to improve or resolve many obesity-related conditions, including type 2 diabetes, high blood pressure and some types of heart disease.

"I think we know that bariatric surgery does good things for people from a cardiovascular risk profile," said Dr. Michael Gold, director of cardiology at Medical University of South Carolina, who wasn't involved in the research. "Now we're starting to go downstream from that to look at more long-term impacts . . . and atrial fibrillation is one of those. It's a logical consequence of what we already know."

The study, from Dr. Yong-Mei Cha and colleagues, was scheduled for presentation Wednesday at Heart Rhythm 2014, the Heart Rhythm Society's annual conference, in San Francisco. Research presented at scientific meetings typically has not been peer-reviewed or published, and results are considered preliminary.

More than one-third of American adults are classified as obese, with a body mass index (BMI) exceeding 30. BMI is a measurement based on height and weight. About 160,000 weight-loss surgeries are performed each year in the United States, according to the American Society for Metabolic and Bariatric Surgery. Several different surgical procedures exist, but all seek to reduce the capacity of the stomach, which allows fewer calories to be consumed and/or absorbed.

Obesity is a known risk factor for atrial fibrillation, which can trigger stroke and other dangerous problems when the top chambers of the heart, called the atria, quiver erratically—sometimes faster than 300 times per minute.

The Mayo Clinic researchers examined data from 438 patients with a

BMI of 40 or higher who were identified as good candidates for bariatric surgery, with about three-quarters of them electing to undergo the procedure.

While the incidence of atrial fibrillation was not markedly different between the surgical and nonsurgical group at the start of the study, only 6 percent of the surgical patients developed the abnormal heartbeat condition over the next seven years, compared to 16 percent of the nonsurgical patients, according to study documents.

"I think this is further evidence that maintaining a normal body weight or weight loss is important for cardiovascular health," said Gold, who is also second vice president of the Heart Rhythm Society. "It provides further impetus for clinicians to think about bariatric surgery sooner, particularly cardiologists. We can be more proactive in our treatment."

Dr. John Day, director of heart rhythm services at Intermountain Heart Institute in Murray, Utah, noted that North America has the highest prevalence of atrial fibrillation in the world, largely because of its obesity epidemic. Prior research has indicated that obesity increases the risk of atrial fibrillation by more than 50 percent, he said.

"The message here is that getting the weight off can have a powerful reversal effect on atrial fibrillation," Day said. "Atrial fibrillation is a reversible condition, it's not set in stone. This is a message of hope for so many patients suffering from it."

More information: The American Society for Metabolic and Bariatric Surgery has details on various types of bariatric surgery.

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Citation: Weight-loss surgery may help prevent heart rhythm disorder (2014, May 8) retrieved 24 April 2024 from https://medicalxpress.com/news/2014-05-weight-loss-surgery-heart-rhythm-disorder.html

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