Bariatric Surgery Slashes CVD Risk, RCT Needed

BY BRUCE JANCIN

Denver Bureau

ATLANTA — An estimated six obese patients need to undergo bariatric surgery in order to prevent one additional cardiovascular event during the subsequent decade, Dr. John A. Batsis said at the annual meeting of the American College of Cardiology.

That's an extremely low number-need-ed-to-treat. It makes bariatric surgery—when performed in carefully selected patients at high-volume centers by expert surgeons—one of the most dramatically effective approaches to reducing cardio-vascular risk, according to Dr. Batsis of the Mayo Clinic, Rochester, Minn.

He presented a retrospective population-based case-control study assessing bariatric surgery's impact on cardiovascular risk factors.

The investigation involved 197 consecutive Olmsted County, Minn., residents with class II or III obesity who underwent Roux-en-Y gastric bypass and 163 similar-weight controls who didn't have surgery, because of medical or psychiatric contraindications, lack of finances, or personal choice.

All study patients participated in an intensive multidisciplinary behavioral modification program for at least 6 months before a decision was made regarding surgery.

The beneficial effects of Roux-en-Y gastric bypass, which has become the most widely used form of bariatric surgery, were apparent in the cardiovascular risk profiles of these Mayo Clinic patients. (See chart.)

At a mean 3.3 years after the bypass, weight loss in the surgical group averaged 44 kg, representing a 71% reduction in the amount of excess weight. The mean estimated 10-year cardiovascular risk prior to bariatric surgery was 37.1%; at follow-up it was cut in half to 18.3%.

In contrast, 10-year estimated cardiovascular risk was unchanged over time in the control group.

The bariatric surgery group also had reductions of 26% in the need for antihypertensive medications, 61% for lipid-lowering drugs, and 68% for diabetes drugs. In contrast, the use of all these cardiovascular medications increased over time in the control group, Dr. Batsis continued.

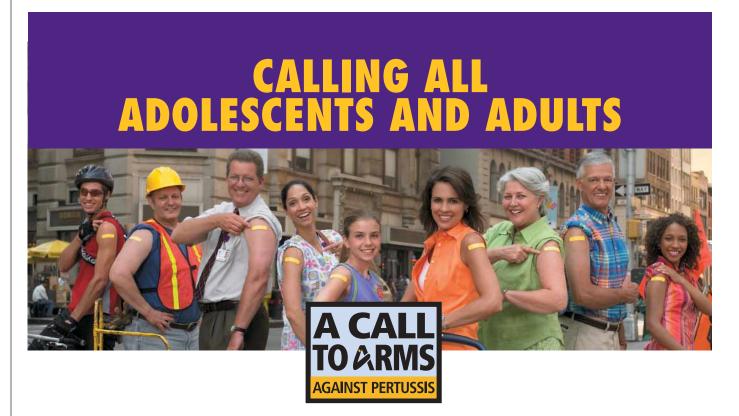
No perioperative mortality occurred in the study.

Dr. Batsis and his coworkers created risk models derived from the National Health and Nutrition Examination Survey and other very large data sets in order to estimate bariatric surgery's impact on 10-year outcomes in the Mayo Clinic patients. They projected that 24 obese patients needed to undergo Roux-en-Y gastric bypass in order to prevent one death from any cause. The number-needed-to-treat to prevent one cardiovascular death during 10 years was 34.

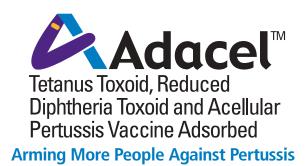
As a retrospective study, this must be considered hypothesis generating rather

than definitive. But the recent explosive growth in the popularity of bariatric surgery makes a randomized controlled trial a research priority. Such an investigation would allow physicians and patients to make decisions about whether to undergo major surgery based on real outcomes data rather than mere estimates, Dr. Batsis said.

Risk Factor	Baseline	3.3 Years After Gastric Bypass
Body mass index (kg/m²)	49	34
Blood pressure (mm Hg)		
Systolic	134	121
Diastolic	80	72
Cholesterol (mg/dL)		
Total	198	154
LDL	118	77
HDL	45	55
Percent of patients meeting diagnostic criteria for diabetes	30%	11%
Source: Dr. Batsis		



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