Bariatric Surgery Cuts Cardiovascular Risk in Obese Patients

By Anthony J. Brown, MD

NEW YORK (Reuters Health) Oct 20 - Obese patients who undergo Roux-en-Y gastric bypass have a reduction in cardiovascular risk relative to their untreated peers of up to 79%, based on Framingham risk scores, according to a report in the October 1st issue of the American Journal of Cardiology.

The take-home message is that "bariatric surgery can be considered as a means to reduce cardiovascular risk (in obese patients) after conservative treatment options have failed," lead author Dr. John A. Batsis told Reuters Health.

Although the cardiovascular benefits of bariatric surgery have been examined before, "our study was the first to use two validated cardiovascular risk scores on a validated patient population and compared these results to aggregate study results published elsewhere," noted Dr. Batsis, from Dartmouth-Hitchcock Medical Center in Lebanon, New Hampshire. He conducted the research while at the Mayo Clinic in Rochester, Minnesota.

In their investigation, Dr. Batsis and colleagues searched MEDLINE and identified six studies assessing cardiovascular risk after bariatric surgery for obesity. The risk models from these studies were then applied to a previously published validation cohort consisting of 197 patients who underwent Roux-en-Y gastric bypass and 163 controls.

Cardiovascular risk at 10 years was calculated using the Framingham and Prospective Cardiovascular Munster Heart Study (PROCAM) risk tables, the report indicates.

In the reviewed studies, bariatric surgery reduced the relative risk for cardiovascular events by 18% to 79% using the Framingham score and by 8% to 62% using the PROCAM score.

In the validation cohort, the absolute 10-year risk of cardiovascular events with bariatric surgery fell from 7.0% to 3.5% using the Framingham score and from 4.1% to 2.0% using the PROCAM score (p < 0.001 for both). By contrast, the corresponding reductions seen in controls were modest, from 7.1% to 6.5% and 4.4% to 3.8% (p = NS).

"Further studies are required to better understand long-term impact of bariatric surgery on predicted cardiovascular risk in obese patients by determining the actual number of cardiac events," Dr. Batsis noted. "Whether these risk scores can be applied to patients undergoing bariatric surgery requires further examination."

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