NEJM Journal Watch

Bariatric Surgery Is Superior to Medical Management for Long-Term Diabetes Control

But differences in total remission of diabetes narrowed over time.

Investigators previously reported pooled 3-year outcomes of four randomized, single-center trials of bariatric surgery or medical management for patients with type 2 diabetes (STAMPEDE, TRIABETES, SLIMM-T2D, and CROSSROADS). They now report outcomes during median follow-up of 11 years in 262 patients (mean age, 50; mean body-mass index [BMI], 36 kg/m^2). About 80% of patients randomized to surgery underwent Roux-en-Y gastric bypass or sleeve gastrectomy. Those randomized to medical management received various structured programs considered more intense than usual care; one quarter of these patients eventually crossed over to surgery.

Selected results are as follows:

- At 7 years, mean glycosylated hemoglobin (HbA_{1c}) had decreased by 1.6 percentage points in the bariatric surgery group versus 0.2 percentage points in the medical management group in an intent-to-treat analysis.
- Roux-en-Y gastric bypass and sleeve gastrectomy were similarly effective, and both were slightly superior to gastric banding.
- Weight loss at 12 years favored surgery (19% vs. 8% of body weight, in an analysis that accounted for the actual treatment received).
- Diabetes remission rates favored surgery at 1 year (50% vs. 0.5%), but the difference declined by 12 years (12.7% vs. 0.0%).
- Medication use continued at 7 years for nearly all medically managed patients but was eliminated for ≈40% of surgery patients.
- Subgroups with BMIs <35 kg/m^2 and ≥35 kg/m^2 had similar weight loss and HbA_{1c} reductions.
- Major adverse cardiovascular events were low and similar in both treatment groups, whereas gastrointestinal symptoms and nutritional deficiencies were more common with surgery.

COMMENT

These results are helpful for clinicians counseling patients about long-term diabetes management. The high rate of diabetes remission in those undergoing surgery faded over time, but medication use was eliminated for many surgery patients. The substantial weight loss in the medical management group suggests the programs were far more intense than is typical for routine practice, and therefore perhaps difficult to replicate. ***— Thomas L. Schwenk, MD***

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Courcoulas AP et al. Long-term outcomes of medical management vs bariatric surgery in type 2 diabetes. **JAMA** *2024 Feb 27; 331:654. (https://doi.org/10.1001/jama.2024.0318)*