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Bariatric Surgery Improves Quality of Life and Results in More Weight Loss Than Intensive Medical Therapy

Clinical Question

Is bariatric surgery more effective than intensive medical therapy for weight loss and for improving the quality of life in persons with diabetes mellitus who are obese?

Bottom Line

Bariatric surgery using Roux-en-Y gastric bypass or sleeve gastrectomy was more effective than intensive medical therapy at improving quality of life and helping patients lose weight and reduce the need for medications. Anemia was more common with sleeve gastrectomy, and approximately 4% of patients in the surgical groups required a second surgery. (Level of Evidence = 1b)

Synopsis

In this study, 150 patients who were overweight or obese were randomized to receive intensive medical therapy, a Roux-en-Y gastric bypass plus intensive medical therapy, or sleeve gastrectomy plus intensive medical therapy. The sponsor of the study, Ethicon, makes the sleeve. Participants had to be between 20 and 60 years of age, have an

A1C level greater than 7.0%, and have a body mass index between 27 and 43 kg per m². A total of 66% of the study patients were women, 74% were white, and the average age was 49 years. At baseline, the average body mass index was 36.5 kg per m², and the average A1C level was 9.3% \pm 1.5%.

This article reports the five-year outcomes of this study. At five years, 134 of the original 150 patients were available for follow-up. Weight loss was greatest in the gastric bypass group, followed by the sleeve gastrectomy group, then the intensive medical therapy group (23% vs. 19% vs. 5%, all comparisons significant at $P = .01$ or $P = .003$). Quality of life was measured by the 100-point RAND Health Survey, with increases of 17 points and 16 points for gastric bypass and sleeve gastrectomy, respectively, compared with no change in the intensive medical therapy group ($P < .05$). Anemia was significantly more common in the sleeve gastrectomy group than in the intensive medical therapy group, whereas hypoglycemic events were significantly less common in the gastric bypass group than in the intensive medical therapy group. Although all three groups were taking fewer diabetes and cardiovascular medications five years later, the decrease was greatest in the gastric bypass group, followed by the sleeve gastrectomy group, then the intensive medical therapy group. There were larger improvements in the surgical groups for the surrogate markers of A1C, high-density lipoprotein, and triglyceride levels. Five total patients in the surgical groups required a second surgery because of complications.

Study design: Randomized controlled trial (nonblinded)

Funding source: Industry

Allocation: Uncertain

Setting: Outpatient (specialty)

Reference: Schauer PR, Bhatt DL, Kirwan JP, et al.; STAMPEDE Investigators. Bariatric surgery versus intensive medical therapy for diabetes—5-year outcomes. *N Engl J Med*. 2017;376(7):641-651.

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