

# Study compares sleeve gastrectomy with medical treatment in obese patients with type 2 diabetes

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A study comparing a bariatric surgical procedure with conventional medical treatment in morbidly obese patients with type 2 diabetes mellitus suggests that surgery was associated with remission or improvement in diabetes-related outcomes, according to a report published Online First by *Archives of Surgery*.

Obesity is one of the major health challenges around the world and the link between obesity and diabetes is well established. The [American Diabetes Association](#) estimates that in 2020 the annual cost of caring for patients with diabetes will approach \$192 billion, the authors write in their study background.

Frida Leonetti, M.D., Ph.D., of the Policlinico "Umberto I," University of Rome "Sapienza," Italy, and colleagues conducted a [prospective cohort study](#) with 30 morbidly [obese patients](#) with type 2 diabetes (T2DM) who underwent sleeve gastrectomy and 30 others who underwent conventional medical therapy for their diabetes.

In the group of patients who underwent laparoscopic sleeve gastrectomy (LSG), "remission of diabetes, as already defined according to the criteria adopted by Buse et al, was achieved for 24 of 30 patients (80 percent), for all 20 patients (100 percent) with a T2DM duration of less than 10 years, and for four of 10 of patients with a T2DM duration more than 10 years (40 percent)," the authors comment in the study results.

All the patients treated with conventional medical therapy remained diabetic and continued or increased their level of hypoglycemic therapy, according to the results.

The group that underwent surgery had a mean (average) [body mass index](#) (BMI) of 41.3 preoperatively that declined to 28.3 at 18 months postoperatively. The other group had a mean preoperative BMI of 39 and a postoperative BMI of 39.8 after 18 months, the study results indicate.

In the surgical group, the prevalence of obstructive sleep apnea (OSAS) decreased from 50 percent to 10 percent and medication use also decreased at 18 months for [antihypertensive](#) and hypolipemic (cholesterol-lowering) medications. The prevalence of OSAS did not change in the non-surgical group and medication use increased, although not significantly, for antihypertensive and hypolipemic medications, according to the results.

"Midterm and long-term results are needed to confirm the positive effect (remission and/or improvement) of LSG on [diabetes](#) and, overall, on the chronic complications of the disease," the authors conclude. "Most importantly, the longer-term results will allow us to compare the costs and benefits of bariatric surgery vs conventional medical treatments."

In an invited critique, Jon C. Gould, M.D., of the Medical College of Wisconsin, Milwaukee, writes: "This is a nice contribution, but, by now, this kind of outcome should not come as a surprise to any bariatric surgeon or regular reader of the [Archives of Surgery](#)."

"These findings demonstrate to the bariatric community that there is a great opportunity to partner with primary care physicians and to educate the public on the significant benefits and safety of bariatric surgery. National guidelines for bariatric surgery need to be developed for people

with [type 2 diabetes](#) and a body mass index of 35 or more (calculated as weight in kilograms divided by height in meters squared)," Gould continues.

Gould concludes: "An obese diabetic patient should have access to bariatric surgery in appropriate clinical circumstances. This access should be uniform, consistent, and not subject to potential bias, differences in opinion, or a lack of understanding regarding contemporary bariatric [surgery](#) outcomes."

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