

Bariatric surgery versus medical therapy for diabetes – 3-year follow-up

CIRURGIA BARIÁTRICA VERSUS TRATAMENTO CLÍNICO PARA DIABETE – 3 ANOS DE SEGUIMENTO

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OBJECTIVE

In short-term randomized clinical trials (1 to 2 years of follow-up), bariatric surgery has been associated with improvement in type 2 *diabetes mellitus* with superior results compared to clinical treatment alone.

METHODS

The results were evaluated 3 years after randomization of 150 obese patients with uncontrolled type 2 diabetes, divided in 3 groups for treatment with medical therapy alone, or medical therapy combined with either Roux-en-Y gastric bypass or vertical gastrectomy. The primary endpoint was a level of glycated hemoglobin of 6% or less.

RESULTS

The mean age of the patients at baseline was 48 ± 8 years, 68% were women, the mean level of glycated hemoglobin was $9.3 \pm 1.5\%$, and the mean body mass index (weight in kilograms divided by the square of the height in meters) was 36 ± 3.5 . Overall, 91% of the patients completed 36 months of follow-up. After 3 years, the primary endpoint criterion was achieved by 5% of the patients in the group of medical treatment alone, compared to 38% of those in the group associated with bypass ($p < 0.001$) and 24% of those in the group associated with vertical gastrectomy ($p = 0.01$). The use of hypoglycemic medication, including insulin, was lower in the surgery group than in the group of clinical treatment alone. Patients in the surgery groups had higher mean weight percentage reductions, totaling $24.5 \pm 9.1\%$ in the group of gastric bypass and $21.1 \pm 8.9\%$ in the group of vertical gastrectomy, compared to a reduction of $4.2 \pm 8.3\%$ in the group of clinical therapy alone ($p < 0.001$ in both comparisons). Measures on quality of life were significantly better in the two groups of surgery compared to the group treated medically. No major late surgical complications were observed.

CONCLUSIONS

In obese patients with uncontrolled type 2 diabetes, 3 years of intensive medical therapy associated with bariatric surgery resulted in glycemic control in significantly more patients than medical therapy alone. Analyses of secondary endpoints, including body weight, use of hypoglycemic medication and quality of life also showed favorable results after 3 years in the groups of surgery compared to the group receiving medical treatment alone.

COMMENT

We have seen in everyday clinical practice that the surgical treatment of obesity leads to a significantly higher cure rate compared to medical treatment alone. In this study, the authors demonstrated by comparing three groups –undergoing medical treatment alone (diet, medication and changes in lifestyle), or clinical treatment plus Roux-en-Y gastric bypass, or medical treatment combined with vertical gastrectomy– marked superiority in the treatments associated with surgical procedures. Successive studies have shown better results with surgical treatment of obesity and its comorbidities, also during longer periods of follow-up. Therefore, we believe that the use of surgery to treat metabolic disorders caused by obesity will be more and more present among us, at least until there is a more efficient and longer lasting clinical treatment that can be offered to replace the current surgery procedures.

REFERENCE

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