Editorial Comment

Laparoscopic Ileal Interposition Associated to a Diverted Sleeve Gastrectomy is an Effective Operation for The Treatment of Type 2 Diabetes Mellitus Patients with BMI 21–29 - Surg Endosc. 2008 Oct 2. [Epub ahead of print]

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ABSTRACT

Background: The objective of this study is to evaluate the clinical results of the laparoscopic interposition of a segment of ileum into the proximal duodenum associated to a sleeve gastrectomy (II-DSG) in order to treat patients with type 2 diabetes mellitus (T2DM) and body mass index (BMI) 21-29 kg/m2.

Patients and methods: The laparoscopic procedure was performed in 69 patients, 22 female and 47 male. Mean age was 51 years (range 41–63 years). Mean BMI was 25.7 (21.8–29.2) kg/m2. All patients had the diagnosis of T2DM for at least 3 years and evidence of stable treatment with oral hypoglycemic agents and or insulin for at least 12 months. Insulin therapy was used by 44% of the patients. Mean duration of T2DM was 11 years (range 3–18 years). Dyslipidemia was diagnosed in 72.5% and hypertension in 66.7%. Nephropathy was characterized in 29% of the patients, retinopathy in 26.1%, and neuropathy in 24.6%.

Results: Overall, 95.7% of the patients achieved adequate glycemic control (HbA1c\7%) without antidiabetic medication. HbA1c below 6% was achieved by 65.2%. Mean postoperative follow-up was 21.7 months (range 7–42 months). Mean postoperative BMI was 21.8 kg/m2. There was no conversion to open surgery. Median hospital stay was 3.4 days (range 2–58 days). Major postoperative complications were diagnosed in 7.3%. There was no mortality. Fasting glycemia decreased from a mean of 218 to 102 mg/dl, postprandial glycemia from 305 to 141 mg/ dl, and homeostasis model assessment of insulin resistance (Homa-IR) from 5.2 to 0.77. All associated comorbidities and complications related to T2DM had significant improvement or control. Arterial hypertension was controlled in 91.3%. Macroalbuminuria was no longer observed. Microalbuminuria resolved in 87.5% of patients. Hypercholesterolemia was normalized in 95% and hypertriglyceridemia in 92% of patients.

Conclusions Laparoscopic II-DSG was an effective operation in controlling T2DM in a nonobese (BM\30 kg/m2) population. Associated diseases and related complications

were also improved. A longer follow-up period is needed.

Editorial Comment:

The authors describe their experience with laparoscopic ileal interposition for the treatment of type 2 diabetes mellitus in non-obese patients. It is important to point out some technical considerations:

- All patients had BMI between 21- 29;

- Surgery was completely laparoscopic;

- Dyslipidemia, hypertension, nephropathy regressed in the vast majority of patients;

- An impressive 95,7% of patients achieved adequate glycemic control.

Besides these great results (follow-up 21.7 months, range 7-42 months) a longer follow-up and a prospective randomized controlled trial must be considered in order to indicate this surgery as a gold standard to treat diabetes in a non-obese population.