

# OBESE PATIENTS WITH DIABETES MELITTUS TYPE II (T2DM). SLEEVE GASTRECTOMY OR ONE ANASTOMOSIS GASTRIC BYPASS SHOULD BE THE TREATMENT OF CHOICE?

## RESULTS OF A SINGLE-CENTER STUDY IN GREECE

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**1) Background:** The number of individuals with T2DM has increased rapidly over the last decades with the vast majority of them being obese. Weight-loss surgery has proven itself effective, with laparoscopic sleeve gastrectomy (**LSG**) being the most popular bariatric operation worldwide over the last decades. Meanwhile, laparoscopic one anastomosis gastric bypass (**OAGB**) is gaining popularity among an increasing number of surgeons. **The aim of this study** was to evaluate and **compare the efficacy** of these two weight-reducing operations **on diabetic control** for obese patients.

Preoperatively	LSG	OAGB	
N (patients)	28	25	
Age (years)	45.9 ± 7.5	46.6 ± 7.9	NS
Sex Distribution	12♂ (42.9%) / 16♀ (57.1%)	10♂ (40.0%) / 15♀ (60.0%)	NS
IBW (kg) <sup>1</sup>	73.7 ± 9.7	73.4 ± 8.5	NS
TBW (kg) <sup>2</sup>	153.8 ± 30.4	155.7 ± 38.0	NS
BMI (kg/m <sup>2</sup> ) <sup>3</sup>	52.2 ± 8.6	52.9 ± 10.9	NS
1st Dgr Diabetics (pts)	19 (67.9%)	15 (60.0%)	NS
HbA1c (%)	7.1 ± 1.2	7.8 ± 2.0	NS
IDDM (pts) <sup>4</sup>	6 (21.4%)	8 (32.0%)	0.046
>1 Antidiabetic Agents	8 (28.6%)	9 (36%)	NS

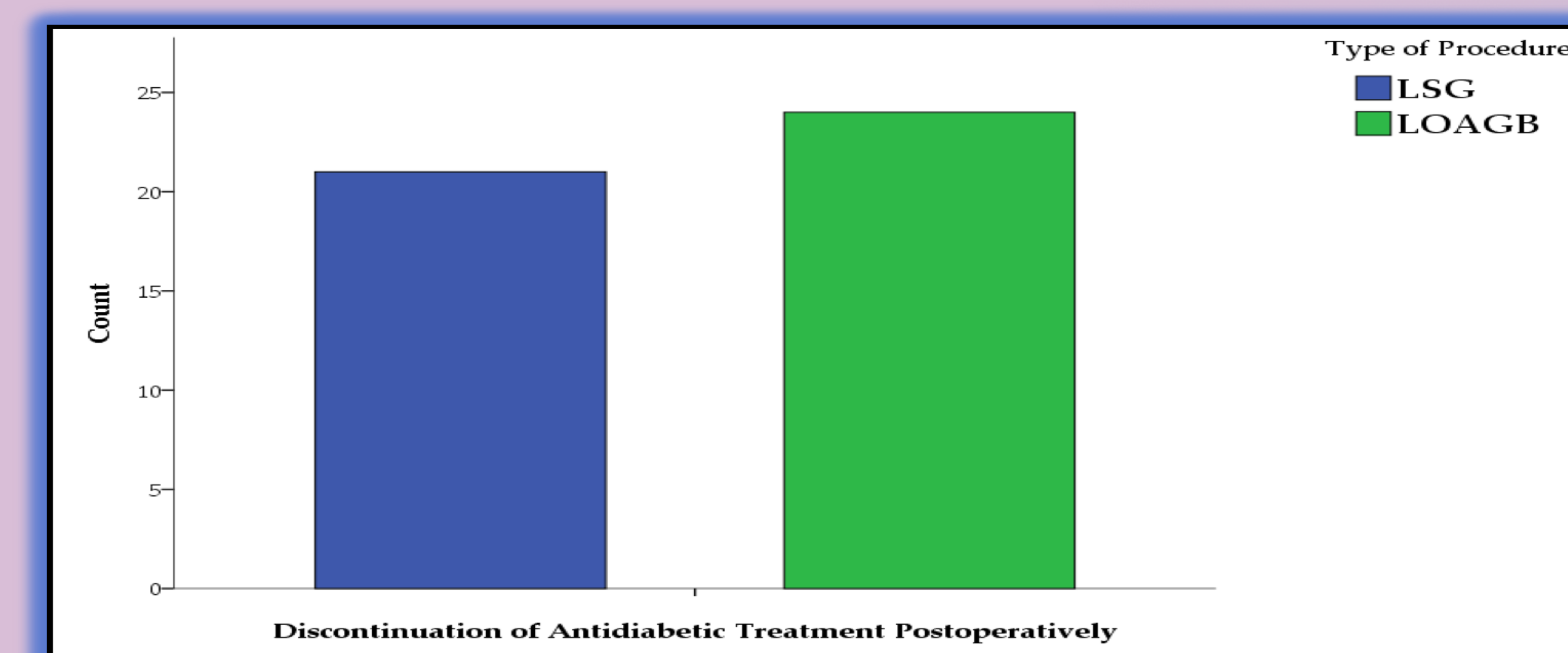
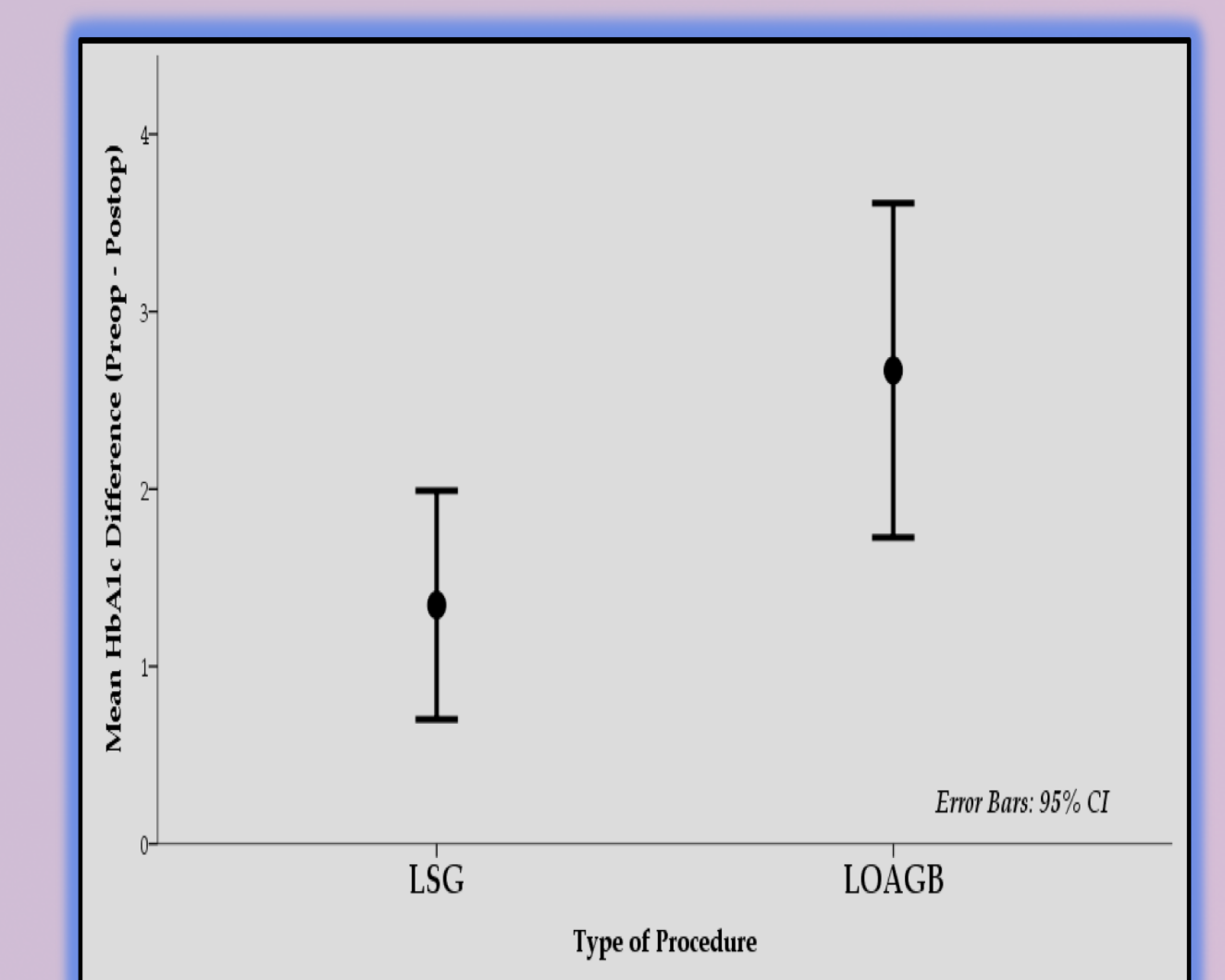
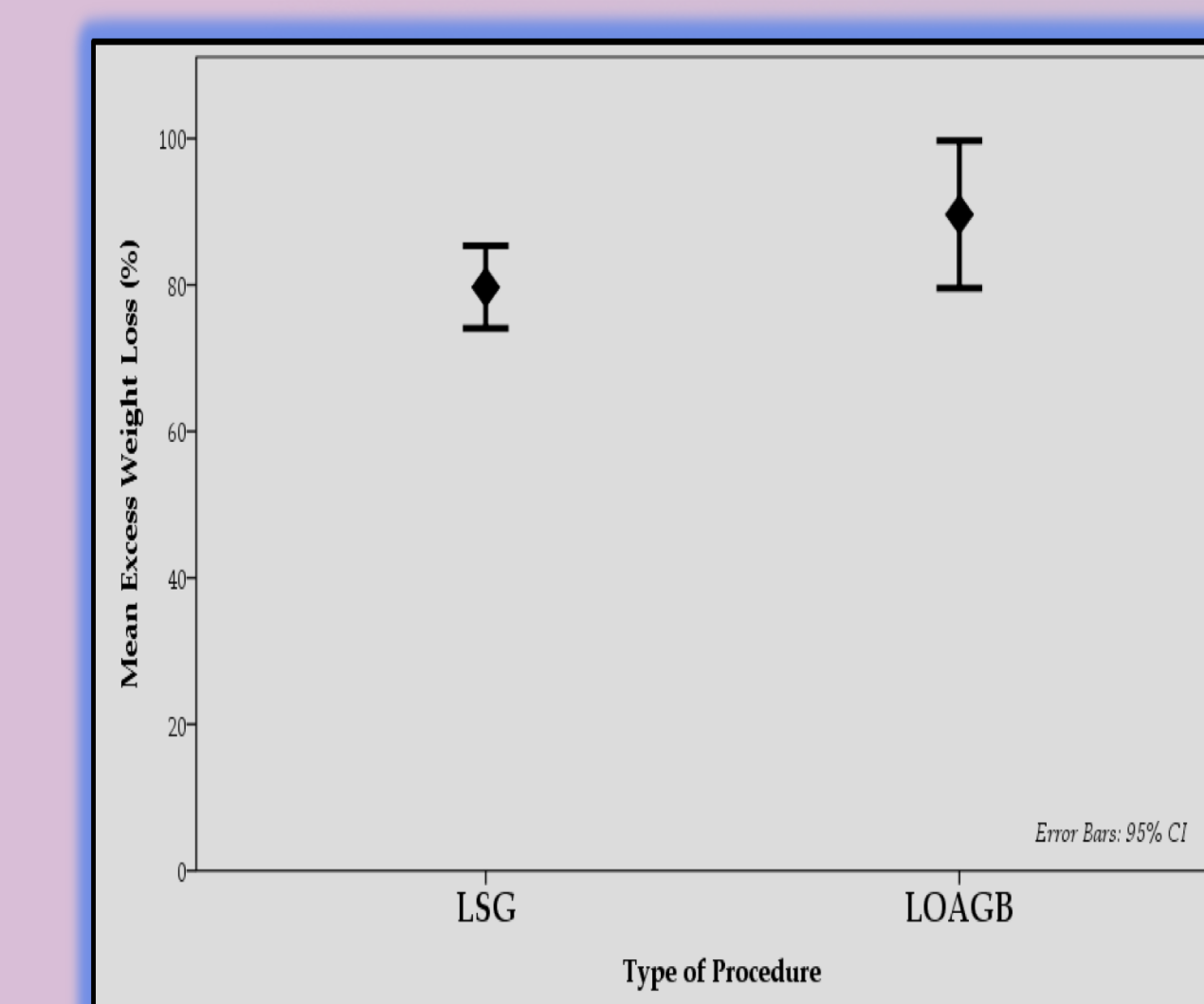
<sup>1</sup> Ideal Body Weight <sup>2</sup> Total Body Weight <sup>3</sup> Body Mass Index <sup>4</sup> Insulin Dependent Diabetes Mellitus

**2) Methods:** This is a **single-centre (single-surgeon)** study of a tertiary hospital, certified as **center of Excellence for Bariatric and Metabolic Surgery**. The data were collected prospectively and analyzed retrospectively. Included were T2DM obese patients who underwent LSG (Group A) and OAGB (Group B) from **September 2011 to October 2015**. Patient demographic characteristics, weight, co-morbidities, HbA1c, anti-diabetic medications, and changes or discontinuation of treatment were recorded at baseline, 1, 3, 6, 12, 18, 24 and 36 months. All patients were followed-up for at least 36 months. The **primary outcome was remission of T2DM** (HbA1c <6.5% without glycemic therapy). Secondary measures included weight and changes of lifestyle related to the glucose levels.

**3) Results:** In a total of 900 patients submitted to LSG or OAGB during the study period, 53 T2DM obese patients have been followed-up for a **minimum period of three years**.

Follow-up (36 months)	LSG	OAGB	
N (patients)	28	25	
TBW <sup>1</sup>	97.7 ± 18.8	90.7 ± 17.6	NS
BMI (Kg/ m <sup>2</sup> ) <sup>2</sup>	33.8 ± 6.5	31.4 ± 6.1	NS
ΔBMI (kg/ m <sup>2</sup> )	18.4 ± 6.3	19.4 ± 4.7	NS
%EWL <sup>3</sup>	79.8 ± 14.5	93.3 ± 16.0	0.003
HbA1c (%)	5.8 ± 0.5	5.2 ± 0.8	
ΔHbA1c (%)	1.4 ± 1.5	2.7 ± 2.1	0.02
Treatment Discont. (pts)	10 (35.7%)	22 (88.0%)	<0.01
Postop Month of Discont.	1st (70%)	1st (81.8%)	
Hypoglycemic Episodes	7 (25.0%)	8 (32.0%)	NS

<sup>1</sup>Total Body Weight, <sup>2</sup> Body Mass Index, <sup>3</sup> Excess Weight Loss %



**4) Conclusion:** **OAGB seems to be a more efficient method** for the treatment of Diabetes Mellitus Type II in obese patients. In comparison to LSG, OAGB is more effective in %EWL and improvement of glycemic control, with almost immediate resolution of diabetes, as well as long-term weight loss.

**Disclosure:** Vrakopoulou Gavriella Zoi: No conflicts; Theodoropoulos Charalampos: No conflicts; Kalles Vassilios: No conflicts; Matiatou Maria: No conflicts; Kostopoulou Fotini: No conflicts; Zografos George K.: No conflicts; Leandros Emmanouil: No conflicts; Albanopoulos Konstantinos: No conflicts