Outcomes of Conversion of Sleeve Gastrectomy to Single Anastomosis Duodenoileal Bypass (SADI-S) To Enhance Weight Loss

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Background

- (SADI-S) has been endorsed by the American Society for Metabolic and Bariatric Surgery **(ASMBS)** and International Federation for the Surgery of Obesity and Metabolic Disorders **(IFSO).**
- Studies available in current literature are focused on SADI-S as a primary bariatric procedure.
- However, data reported on conversion of sleeve gastrectomy (SG) to SADI-S in order to **enhance weight loss is still limited**.
- The aim of this study was to evaluate perioperative outcomes and short-term results of revisional SADI-S to enhance weight loss.

Methods

- Patients who underwent revisional surgery to convert SG to SADI-S to enhance weight loss were identified from **December 2018 to August 2020.**
- Intraoperative and perioperative outcomes were analyzed.
- A mathematical model with **mixed-effects and polynomial regressions** was used to determinate the weight loss.

Results

- Our study included **26 patients,** 69.2% female with a mean age of 39 years.

Table 1: Baseline weight and comorbidities

Variables	Before SG	Before SADI-S
BMI (mean ± SD)	51.1 kg/m^2 ± 9.5	44.2 kg/m^2 ± 7.0
TBWL (%)	N/A	13.6
Comorbidities (N, %)		
Hypertension	6 (23%)	
GERD	5 (19.2%)	
Hyperlipidemia	4 (15.3%)	
OSA	3 (11.5%)	
T2D	2 (7.6%)	

Abbreviations: BMI, *Body mass index;* ***GERD,*** *Gastroesophageal reflux disease;* ***OSA,*** *Obstructive sleep apnea;* ***SD,*** *Standard deviation;* ***T2D,*** *Type 2 diabetes; %* ***TBWL,*** *percentage of total body weight loss.*

- The median operative time was **193 minutes**.
- Minimally invasive surgery (MIS) approach was successfully completed in **all cases** including fourteen laparoscopic (53.8%) and twelve robotic-assisted (46.2%) cases.
- There were **no intraoperative** complications and the median hospital stay was **two days**.

Results

Table 2: Weigh loss based on the mathematical model

Follow up	BMI (mean ± SD)	TBWL (%)	Patients with follow up (%)
6-months	38.2 kg/m^2 ± 6.3	11.6	(11/15, 73.3)
9-months	35.6 kg/m^2 ± 5.9	17.5	(4/9, 44.4)
12-months	33.1 kg/m^2 ± 5.5	23.3	(4/5, 80.0)

Abbreviations: BMI, *Body mass index;* ***SD,*** *Standard deviation; %* ***TBWL,*** *percentage of total body weight loss.*

- No postoperative complications and no reoperations occurred.
- There were **no mortalities** and the mean follow-up period was **six months**.

Conclusions

- Conversion of SG to SADI-S appears to be **safe** when performed to enhance weight loss.
- Results suggested that conversion of SG to SADI-S **leads to significantly** more total body weight loss compared to the primary procedure.
- **Future studies** with larger sample sizes are needed to explore the medium and long term outcomes, and compare with other procedures.

Disclosures

- Authors have no conflicts of interest relevant to this publication.