Comparative Analysis of Single Anastomosis Sleeve Ileal Bypass (SASI) versus Sleeve Gastrectomy: Impact on Weight Loss, Body Composition, and Comorbidities

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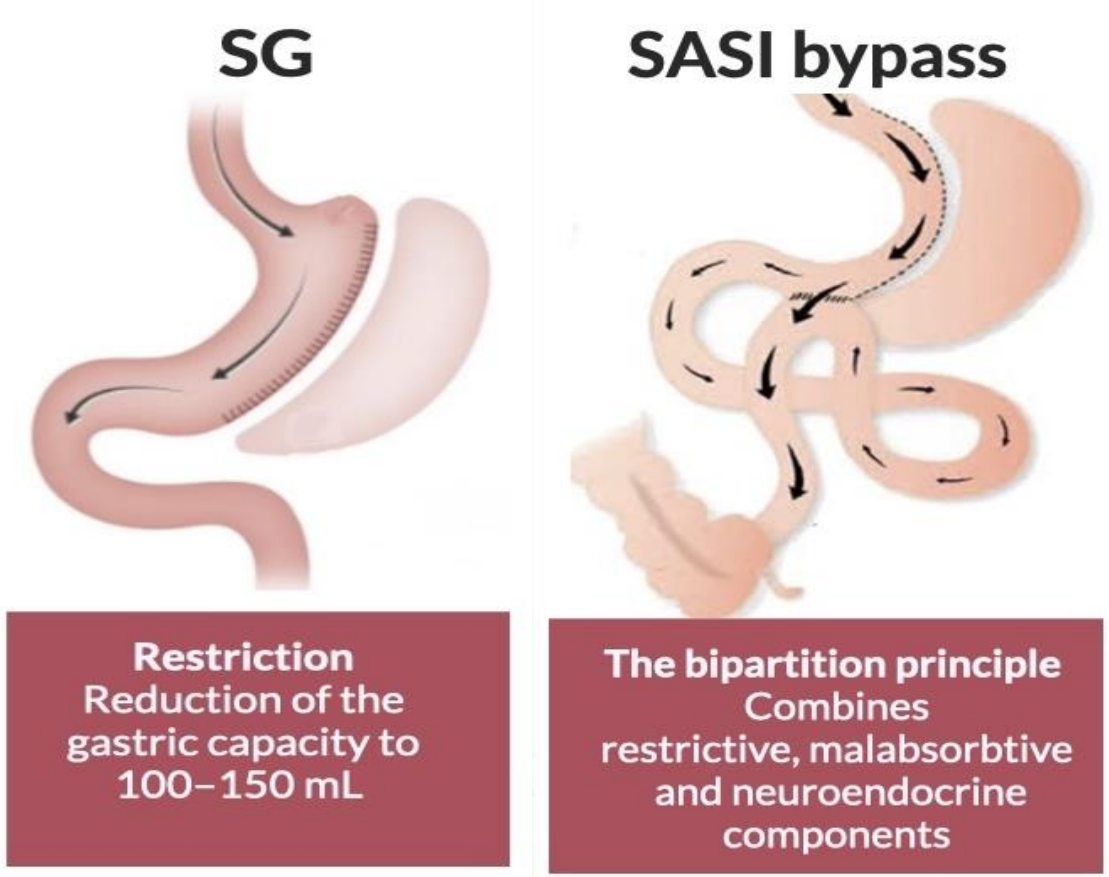
I have no potential conflict of interest to report

Aim: to compare **SASI Bypass** and **Sleeve Gastrectomy** 12 mo after surgery



- weight loss → %EWL, % TWL in 6 and 12 months
- body composition → SMM loss, FM loss in 6 and 12 months
- remission of comorbidities → Remission of T2DM, arterial hypertension, dyslipidemia 12 mo after surgery

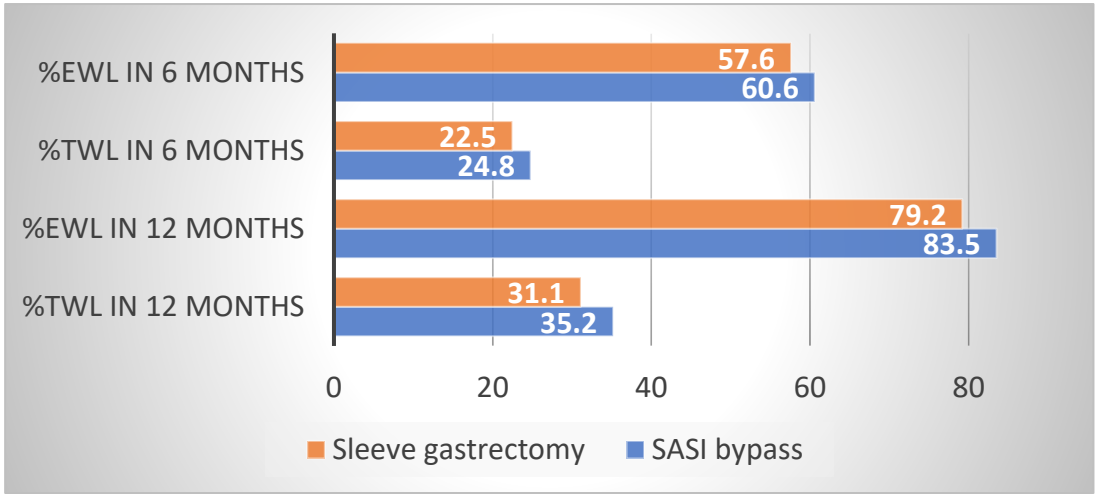
Methods

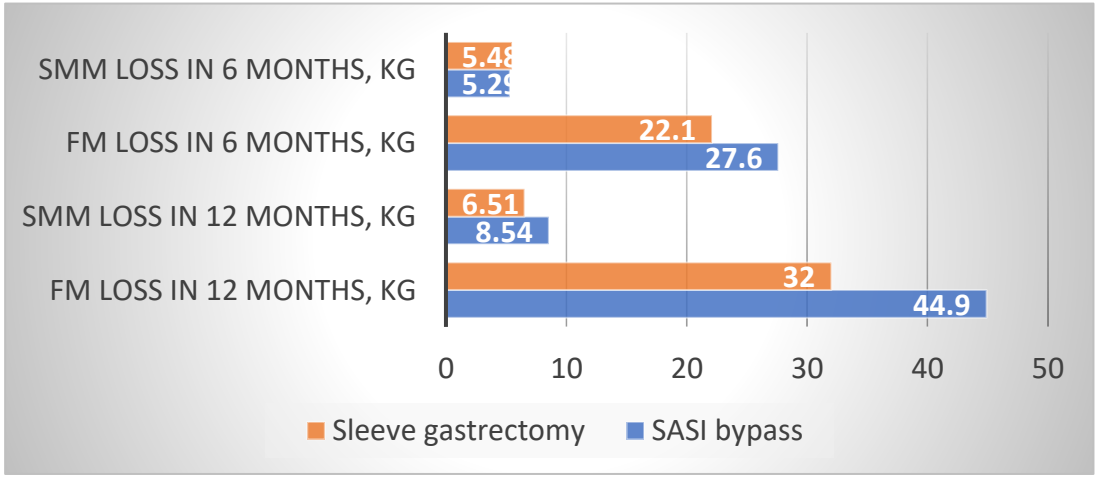
- Retrospective study
- Feb 2017 – Dec 2022
- Single institution
- 110 patients

Demographics, Measurements, and Comorbidities

Parameter	SASI Bypass	Sleeve Gastrectomy	p-value
n	55	55	
Age (yr)	44.8	41.2	0.093
Female	40	47	0.159
BMI (kg/m^2)	44.9	43.5	0.347
Diabetes mellitus (%)	56.4	47.3	0.345
Hypertension (%)	87.3	76.4	0.216
Dyslipidemia (%)	54.6	43.,6	0.252

Weight Loss and Changes in Body Composition 6 and 12 Months After SASI Bypass and Sleeve Gastrectomy





Parameter	SASI bypass	Sleeve gastrectomy	p value
%EWL (6 mo)	60.6	57.6	0.54
%TWL (6 mo)	24.8	22.5	0.09
Muscle mass loss (6 mo; kg)	5.29	5.48	0.90
Fat mass loss (6 mo; kg)	27.6	22.1	*0.02*
%EWL (12 mo)	83.5	79.2	0.60
%TWL (12 mo)	35.2	31.1	*0.04*
Muscle mass loss (12 mo; kg)	8.54	6.51	0.06
Fat mass loss (12 mo; kg)	44.9	32.0	*<.001*

Resolution of Comorbidities at 12 Months

	SASI bypass	Sleeve gastrectomy
T2D Remission	31/31 (100 %)	25/26 (96 %)
AH Remission	45/48 (94 %)	40/42 (95 %)
Dyslipidemia Remission	29/30 (96 %)	20/24 (83 %)

Remission of Type 2 Diabetes

- Normal measures of glucose metabolism(HbA1c <6 %, FBG <5,5 mmol/L) off antidiabetic medication

Remission of Arterial Hypertension

- Blood Pressure <120/80 off antihypertensive medication

Dyslipidemia Remission

- Normal lipid panel (Total cholesterol, LDL cholesterol, HDL cholesterol, Triglycerides) off medication

Conclusions

SASI bypass demonstrated significantly higher % total weight loss than sleeve gastrectomy at 12 months

SASI bypass resulted in greater fat mass loss than sleeve gastrectomy at 6 and 12 months, while skeletal muscle mass loss was comparable

SASI bypass may offer better resolution of comorbidities such as T2DM and dyslipidemia compared to sleeve gastrectomy

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