Group-matched study of OAGB vs SASJ - 3 year data in a single unit.

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I have no potential conflict of interest to report

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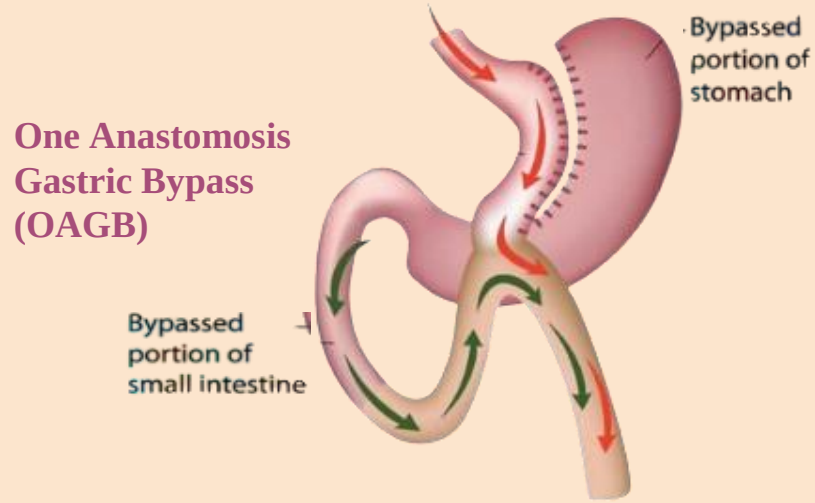
Aim

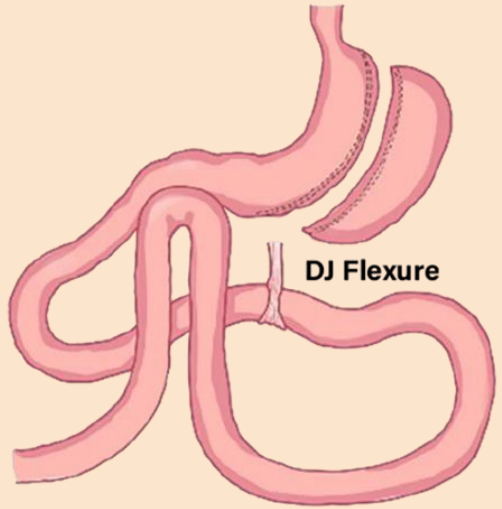
To compare the efficacy, safety, nutritional stability and complications of SASJ with OAGB.

Methods

- 41 patients were matched in age, BMI, diabetes incidence and HbA1c and data compared over 3 years.
- Bypassed limbs of 100-200 cm, depending on total bowel length. Common channel maintained preferably >400 cm; at least 300 cm.
- Loop anastomosis with 45 mm cartridge, leak test with methylene blue and Petersen's space closure done with non-absorbable sutures.



One Anastomosis Gastric Bypass (OAGB)



Single Anastomosis Sleeve Jejunal (SASJ) Bypass

Yu, H., Qian, L., Yan, Y. et al. Analysis of the efficacy of sleeve gastrectomy, one-anastomosis gastric bypass, and single-anastomosis sleeve ileal bypass in the treatment of metabolic syndrome. Sci Rep 14, 5069 (2024).

Group-Matched Demographics

TSBL = Total Small Bowel Length
CC = Common Channel

n = 41	OAGB	SASJ
Age (yr)	42.95 (22-58)	41 (19-65)
BMI (kg/m^2)	44 (32-62.4)	49.03 (38.05-66.67)
No. of Diabetic patients	18	18
HbA1c (%)	6.71	6.63
TSBL (cm)	605 (400-790)	663 (530-890)
CC (cm)	422 (250-590)	466 (330-690)
CC > 400 cm	20 patients	27 patients

Results

- All procedures were completed safely without any intraoperative or immediate postoperative complications.
- Hospital stay : 2-3 days

Diabetes Remission

	OAGB		SASJ	
	1 yr	3yr	1yr	3yr
HbA1c < 6.5	36	36	41	18
HbA1c ≥ 6.5	5	5	0	0
Remission (%)	**87.8**	**87.8**	**100**	**100**

- *Diabetic remission was marginally better with SASJ.*

Good control of FBS, PPBS and HbA1c.

	OAGB			SASJ		
	FBS (mg/dl)	PPBS (mg/dl)	HbA1c (%)	FBS (mg/dl)	PPBS (mg/dl)	HbA1c (%)
Preop	127	174	6.71	115	135	6.63
1 yr	115	139	5.73	87	101	5.4
3 yr	88	108	6.15	83	100	5.76

Weight Loss

	OAGB		SASJ	
	BMI (kg/m^2)	TBWL (%)	BMI (kg/m^2)	TBWL (%)
Preop	44		49.05	
1 yr	30.74	29.3	31.37	35.96
3 yr	29.87	**31**	28.85	**38.59**

- *%TBWL and mean BMI control were marginally better with SASJ at 3 yr.*

Good control of cholesterol and triglycerides seen.

	OAGB		SASJ	
	S. Triglycerides (mg/dl)	S. Cholesterol (mg/dl)	S. Triglycerides (mg/dl)	S. Cholesterol (mg/dl)
Preop	142	151	145	172
1 yr	94	125	92	122
3 yr	91	124	89	135

Nutritional Stability

Nutritional Factors	OAGB			SASJ		
	Pre-Op	1 yr	3yr	Pre-Op	1yr	3yr
Hb	12.39	12.87	11.3	12.89	12.57	10.95
T. Protein	7.1	6.8	6.9	7.04	6.86	6.95
S. Albumin	3.9	3.9	3.9	3.95	3.9	3.84
Calcium	8.2	8.8	8.2	9.2	8.93	8.31
Vitamin D3	20	28	21.7	24.3	30.71	24.38
Vitamin B12	374	466	475	498	461	372
Iron	62.8	52.3	51.2	76.75	53.31	47.22

- ➔ *Proteins, albumin, calcium, vitamins D and B12 were well maintained and similar in both groups.*
- ➔ ***Hemoglobin and iron levels were similar, but reduced at 3yrs for both groups.***
- ➔ *SASJ group → 6 patients had food intolerance.*
  - *4 were managed conservatively*
  - *2 patients required a partial reversal*
- ➔ *OAGB group → 1 patient each, worsened to CKD and dialysis, severe anemia and one expired with coronary disease at 3yrs.*
- ➔ *No mortality was caused by the procedure.*

Conclusion

- ➢ **Both techniques of bypass can be performed safely and easily, with good results**
- ➢ **SASJ has the added advantage of maintaining biliary access and the option of partial reversal, while maintaining the sleeve.**