

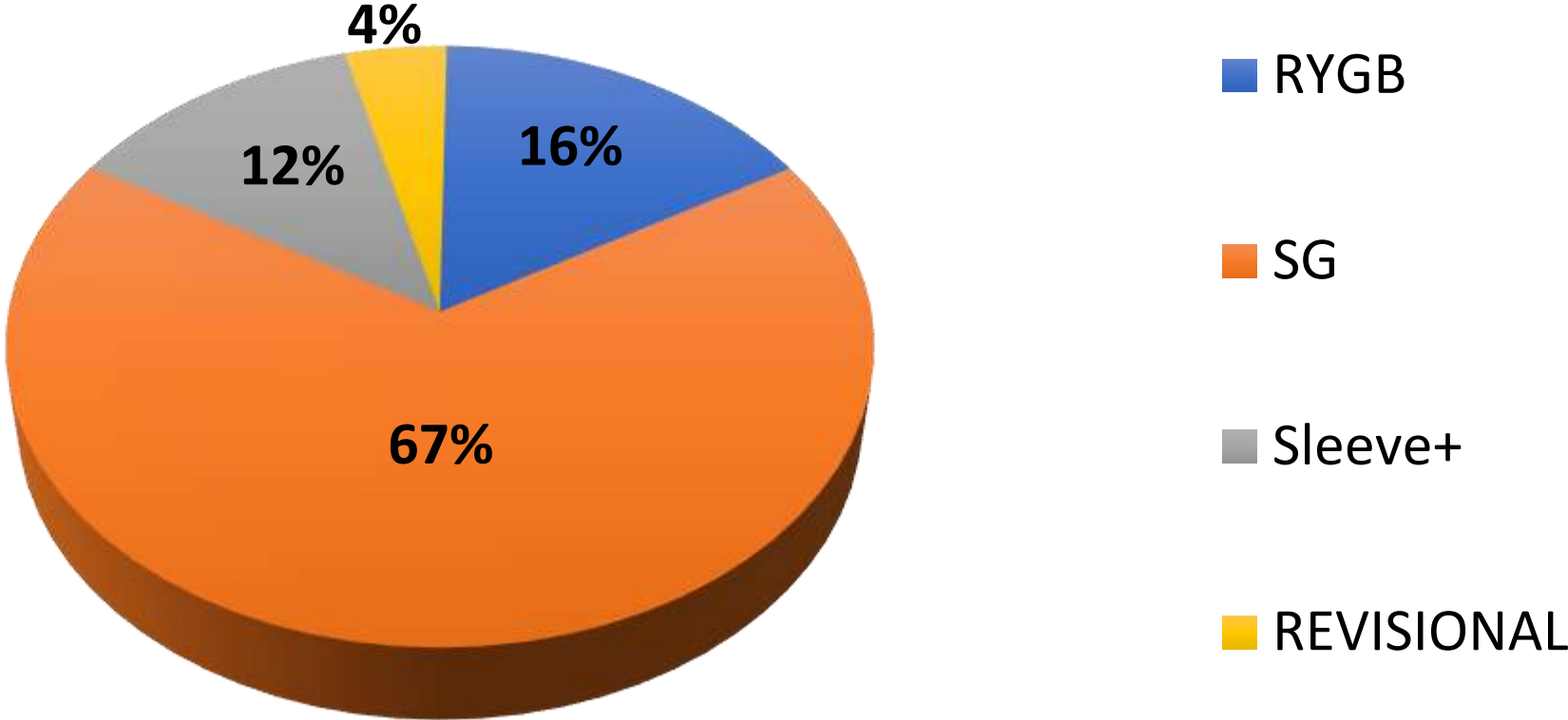
FEASIBILITY AND SAFETY OF LAPAROSCOPIC 3-PORT SLEEVE GASTRECTOMY IN ASIAN POPULATIONS WITH OBESITY

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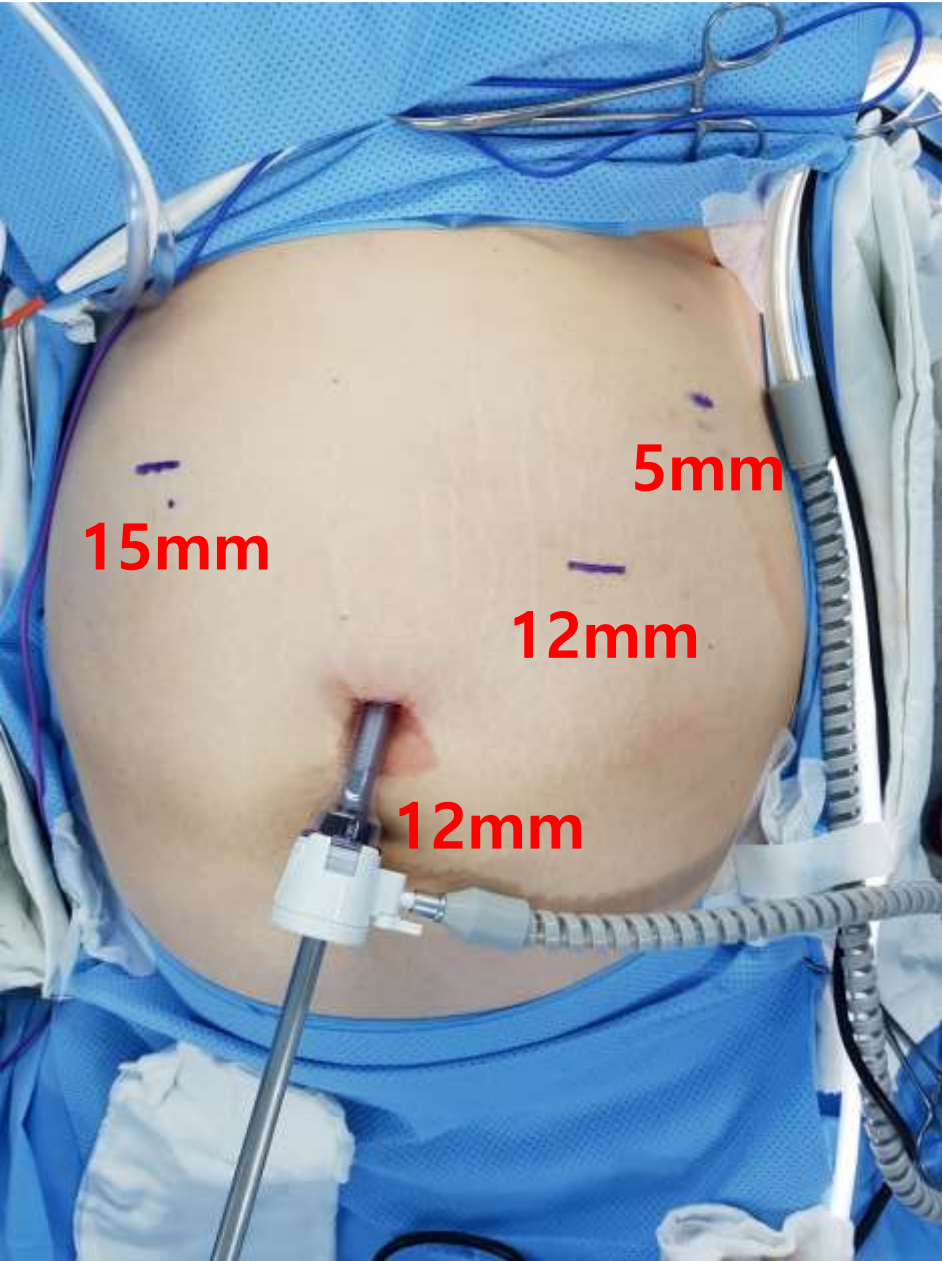
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CASE MIX DISCLOSURE



Introduction



About
150
cases



Purpose & Methods

Purpose: compare the **feasibility** and **safety** of laparoscopic **3-port sleeve** gastrectomy to **conventional 4-port** surgery in Asian populations with obesity.

Data selection: **consecutive 121 cases** after 3-port sleeve gastrectomy started in **May 2021** at a single institution

Dependent variable:

1. **Operative time, EBL, number of cartridges used, postoperative hospital stay**
2. **Intra- and postoperative complications, readmission, and reoperation rate**
3. **Conversion rate**
4. **% of total weight loss & % of remnant gastric volume on CT at 1 year F/U**



Baseline characteristics

	3-port (N=81)	4-port (N=40)	p
Female	64 (79.0%)	20 (50.0%)	0.002
Age	34.1 ± 10.4	33.4 ± 8.7	0.706
Height	165.3 ± 7.5	169.1 ± 7.7	0.013
Weight	107.1 ± 19.2	128.6 ± 32.5	< 0.001
BMI	39.1 ± 6.5	44.8 ± 10.1	0.002
Combined operation*	12 (14.8%)	10 (25.0%)	0.264

*Combined operation:

3-port: cholecystectomy (6), HHR (1), umbilical hernia repair (4), GY operation (2)

4-port: cholecystectomy (7), HHR (2), umbilical hernia repair (2)

Perioperative outcomes

	3-port (N=81)	4-port (N=40)	p
Operative time	107.5 ± 18.5	127.6 ± 27.7	<0.001
Estimated blood loss	9.4 ± 8.5	17.6 ± 17.0	0.006
Number of cartridges used	5.3 ± 0.7	5.8 ± 0.8	0.001
Removed gastric weight (mg)	109.5 ± 21.3	131.4 ± 30.5	< 0.001
Intraoperative complication	4 (4.9%)	4 (10.0%)	0.506
Postoperative complication	1 (1.2%)	0 (0.0%)	1.000
Major early	1 (1.2%)	0 (0.0%)	
Major late	0 (0.0%)	0 (0.0%)	
Minor early	0 (0.0%)	0 (0.0%)	
Minor late	0 (0.0%)	0 (0.0%)	
Postoperative hospital stay	2.4 ± 0.9	2.3 ± 0.7	0.408
Readmission	0 (0.0%)	0 (0.0%)	1.000
Reoperation	1 (3.2%)	0 (0.0%)	0.929
Mortality	0 (0.0%)	0 (0.0%)	1.000

Perioperative outcomes

Intraoperative complication

3-port (4): bleeding at short gastric vessel → additional 1 port (1)

minor hepatic injury d/t traction device (2)

gastric serosal tear after first stapling (1)

4-port (4): minor hepatic injury d/t traction device (1)

broken device (gold finger) (1)

hematoma at peri-splenic area (1)

gastric serosal tear during dissection (1)

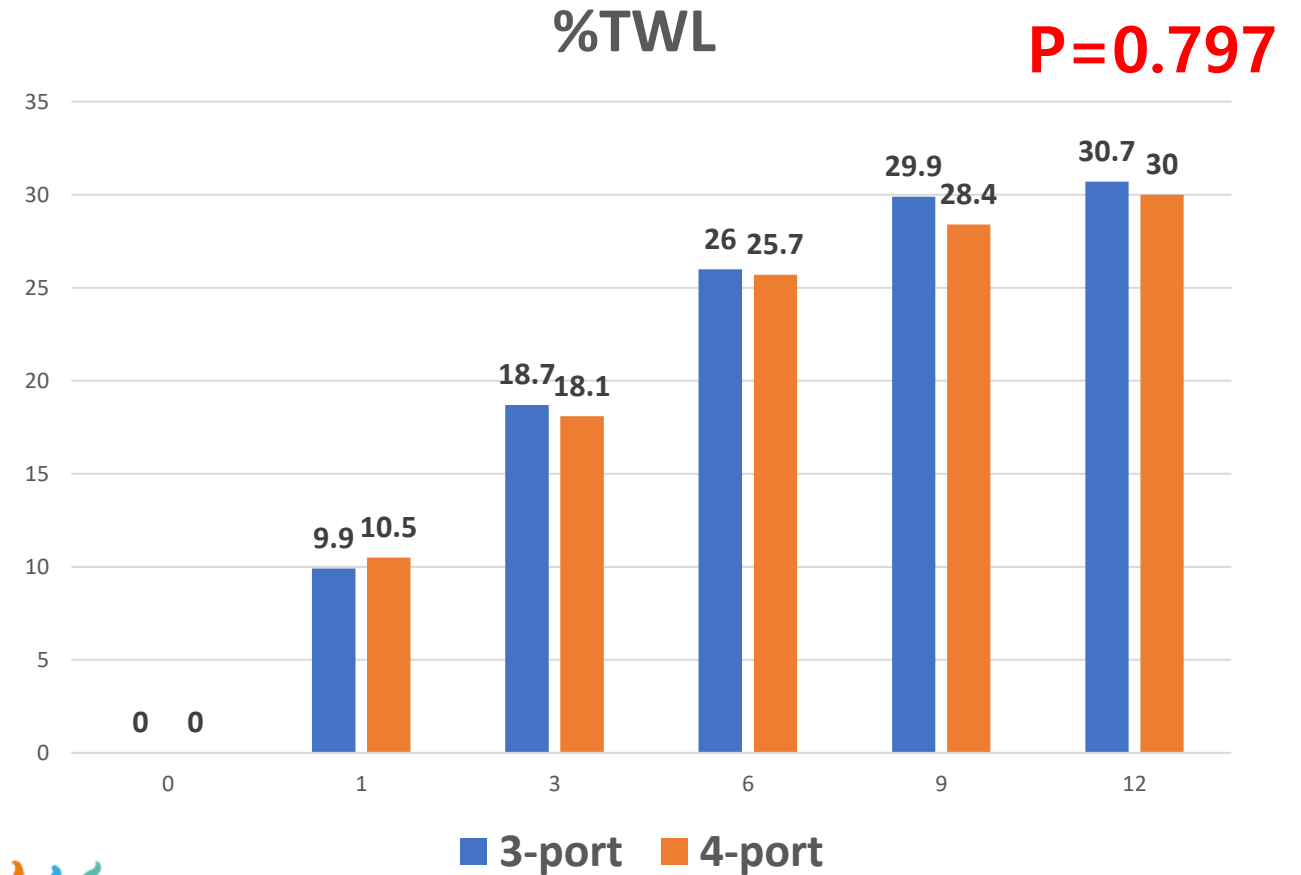
Postoperative complication (Major early)

3-port (1): bleeding at supra-splenic area → reoperation: no exact bleeding focus

Weight loss at 1 year F/U

Completion of 1 year follow-up rate: 51/121 patients, 42.1%

Body weight	3-port (N=31)	4-port (N=20)	p
Preoperative	107.7 ± 20.4	125.3 ± 26.7	0.004
at 1 month	94.3 ± 18.9	112.0 ± 27.8	0.004
at 3 month	86.3 ± 19.1	102.3 ± 27.2	0.015
at 6 month	77.8 ± 18.7	95.6 ± 26.9	0.011
at 9 month	74.7 ± 17.3	91.3 ± 27.1	0.038
at 12 month	74.0 ± 17.9	85.7 ± 19.6	0.100



No difference at each follow-up

Gastric volume on CT at 1 year F/U

CT volumetry at baseline and 1 year after surgery

	3-port	4-port	p
Preoperative gastric volume	1031.0 ± 255.0	1144.9 ± 261.7	0.115
Remnant gastric volume at 1 year	202.9 ± 69.0	234.1 ± 96.6	0.508
% of gastric volume at 1 year	20.4 ± 5.4	21.3 ± 8.2	0.830

Conversion to 4-port: 7 cases

Conversion rate (3-port to 4-port): 7/81 patients, **8.6%**

1st : 29/F, BMI 30.1 ***bleeding at supra-splenic area**

2nd : 32/F, BMI **64.2** ***for liver traction** due to heavy liver

3rd : 42/**M**, BMI **47.5** ***for better vision**

4th : 29/F, BMI 36.5 ***for hiatal hernia repair**

5th : 32/F, BMI **48.6** ***for liver traction** due to heavy liver

6th : 57/**M**, BMI 34.0 ***for better vision**

7th : 35/**M**, BMI **51.5** ***for liver traction** due to heavy liver

Summary

1. Laparoscopic 3-port sleeve gastrectomy is safe and effective in Asian morbidly obese patients.
2. It is better not to hesitate to add a trocar in case of intraoperative complications or to ensure a good view.
3. Large scale, prospective study is needed.

Thank You

