

A CLINICAL ANALYSIS COMPARATIVE OF THE EFFECTIVENESS OF SLEEVE GASTRECTOMY AND ROUX-EN-Y GASTRIC BYPASS OPERATIONS

Davlatov O‘tkir Hamdamovich

Assistant Professor, Faculty No.1 and Department of Hospital Surgery, Tashkent State Medical University, PhD.

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ABSTRACT:

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Obesity and to him/her related metabolic diseases global health storage system in front of the most current from problems one become remains . Last in years bariatric surgical morbid obesity treatment the most effective method as confession In practice the most wide applicable methods — sleeve gastrectomy (SG) and Roux-en-Y gastric bypass (RYGB) , their every one to oneself typical advantage and to restrictions has . However this operations efficiency straight away comparator local clinical information enough it's not .

This of the research The purpose of sleeve gastrectomy and gastric bypass surgeries weight reduction , metabolic indicators , operational security and complications frequency according to efficiency complex by comparison from evaluation consists of . Retrospective analysis of bariatric surgery in 2021–2024 operation 96 people transferred patient Patients were divided into SG (n=58) and RYGB (n=38) groups . separated . From the operation BMI before , 6 and 12 months after , plus weight disappearance percentage (%EWL), HbA1c, lipid profile and complications indicators

studied.

Results every both operation body weight type noticeable to decrease take to come ($p < 0.001$). 12 months %EWL and HbA1c reduction in the RYGB group at follow-up higher was in the SG group and operation duration shorter and perioperative complications less record was taken. Long term metabolic efficiency RYGB superiority in terms of operative security and technician convenience according to while SG has the advantage determined.

Conclusion as in other words, every both method high clinical to efficiency has optimal operation type choice individual clinical characteristics of the patient profile and comorbid to the circumstances justification necessary.

Entrance

Obesity world according to spread last ten in years pandemic to the level reached. World Health Organization storage organization to the information according to, excessive weight and obesity heart and blood vein diseases, type 2 diabetes diabetes, obstructive sleep apnea and some oncological diseases development main modifiable danger factor Conservative treatment methods many in cases stable result not given because of bariatric surgery obesity treatment in the algorithm central place occupied.

Current sleeve gastrectomy at the same time and Roux-en-Y gastric bypass many executable bariatric operations Sleeve gastrectomy mainly restrictive mechanism through impact showing, stomach size reduces and ghrelin secretion Roux-en-Y gastric bypass reduces combined — restrictive and malabsorptive — to the effect has to be, to be hormones profile change through strong metabolic effect gives.

In the literature this two of the method efficiency according to opposite information available. Some authors RYGB's diabetes remission according to advantage Others emphasize the low invasiveness of SG and safety main advantage as Therefore, real clinical

practice under the circumstances this operations complex comparison important scientific and practical importance has .

Research purpose

Sleeve gastrectomy and Roux-en-Y gastric bypass surgeries weight reduction , metabolic efficiency and complications profile by comparison assessment .

Materials and methods

Research retrospective cohort analysis as Faculty No. 1 and hospital surgery department clinical at the base Completed . During 2021–2024 bariatric operation 96 people transferred patient analysis was done .

Patients choice criteria

Input criteria :

- BMI ≥ 35 kg /m²
- 18–60 years old
- primary bariatric operation
- at least 12 months old observation

Release criteria :

- revision operations
- heavy somatic decompensation
- complete observation information absence

Operation technique

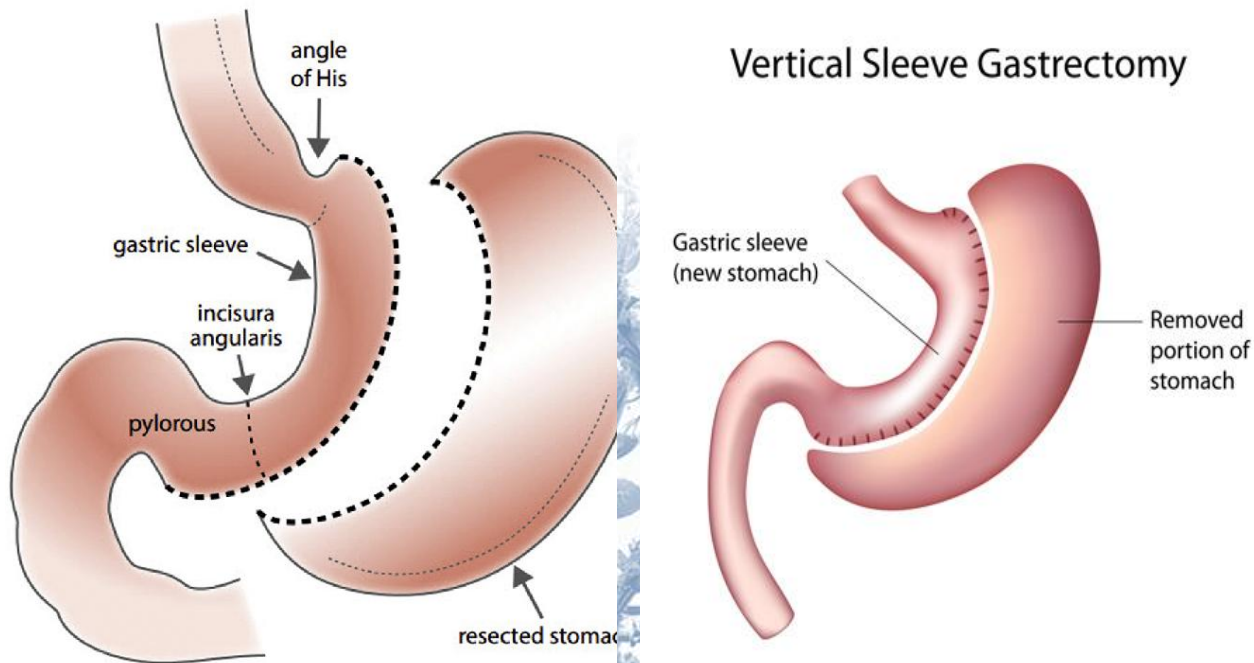
SG laparoscopic 36 Fr spark plug in the method under control performed . RYGB in small gastric reservoir formed into a 100–150 cm alimentary ring harvest was done .

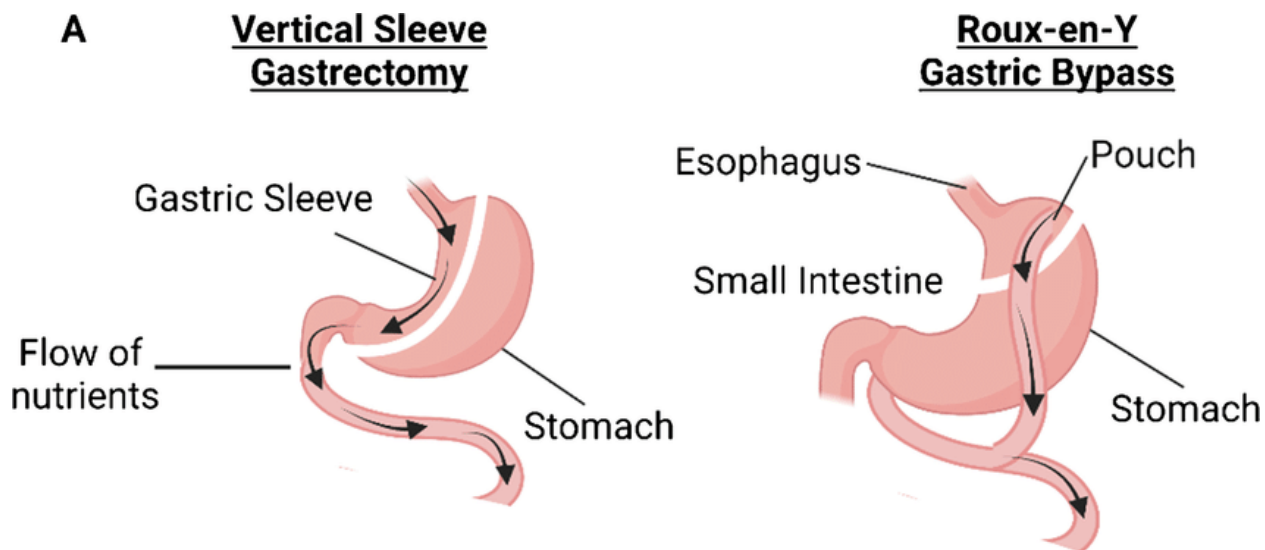
Rated indicators

- BMI
- %EWL
- HbA1c
- hungry to the stomach glucose
- lipid profile
- operation duration
- early and evening complications
- in the hospital to lie down deadline

Statistical analysis

Data in SPSS 26.0 again worked . Quantitative indicators are expressed as $M \pm SD$ given . $p < 0.05$ — statistical significant





B Differences and Similarities between VSG and RYGB

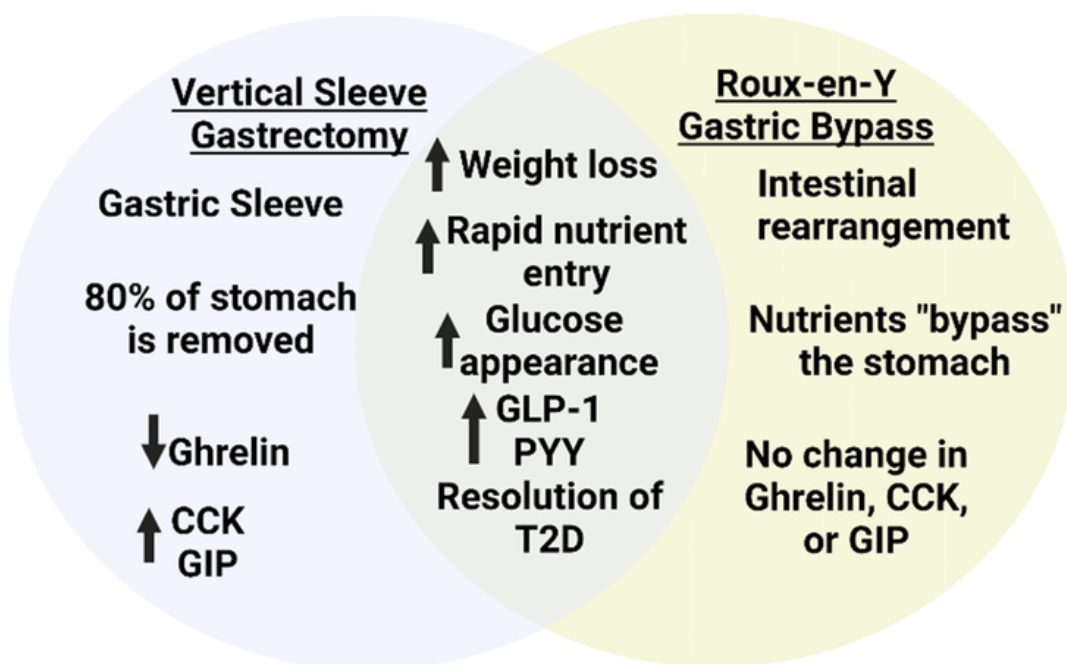
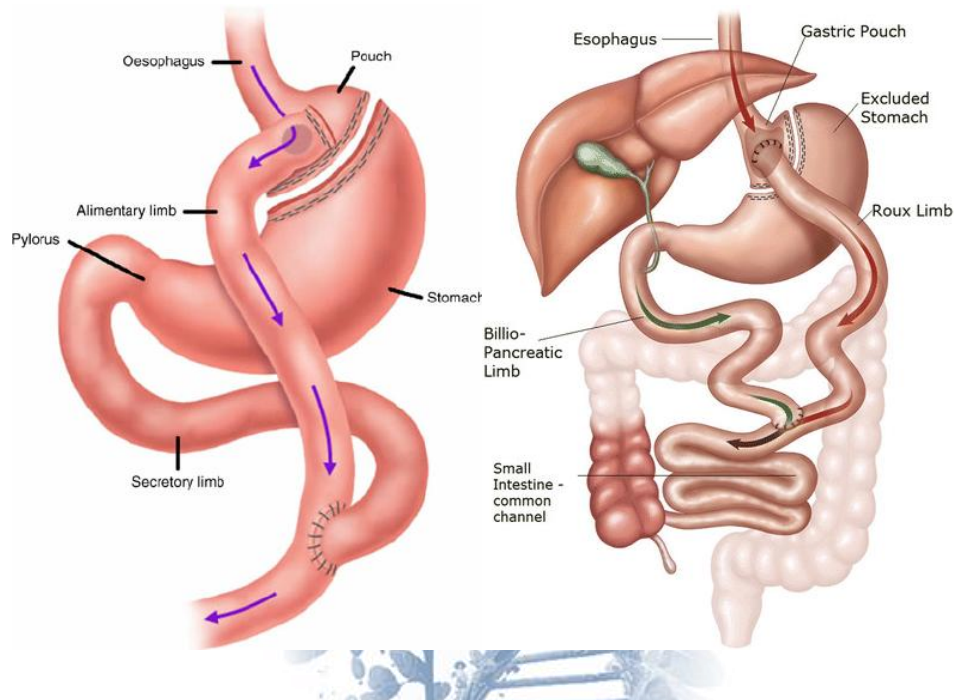


Figure 1. Sleeve gastrectomy of the operation anatomical essence — stomach size restrictive reduce



Roux-en-Y Gastric Bypass (RNY)

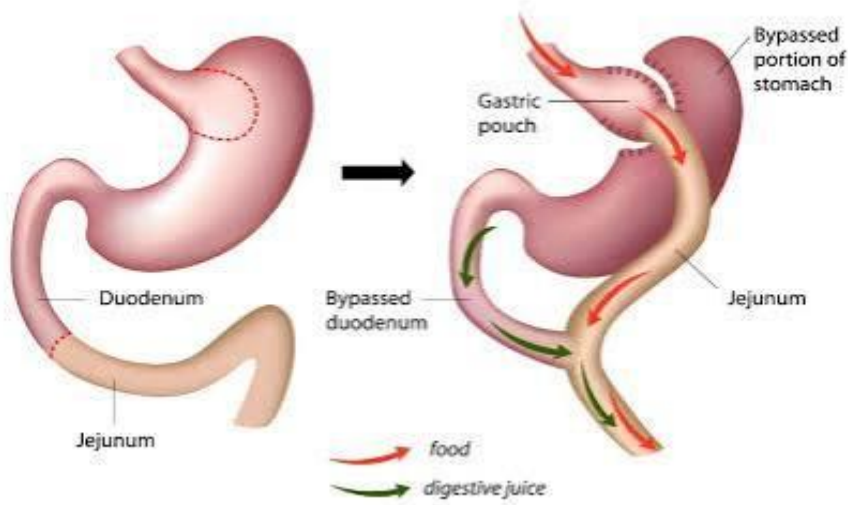
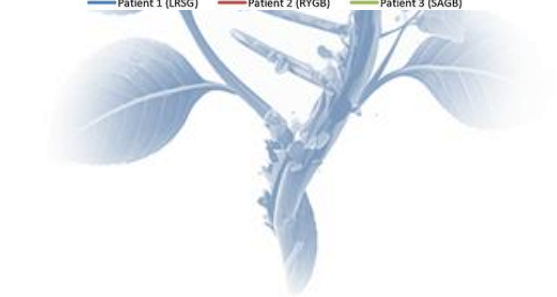
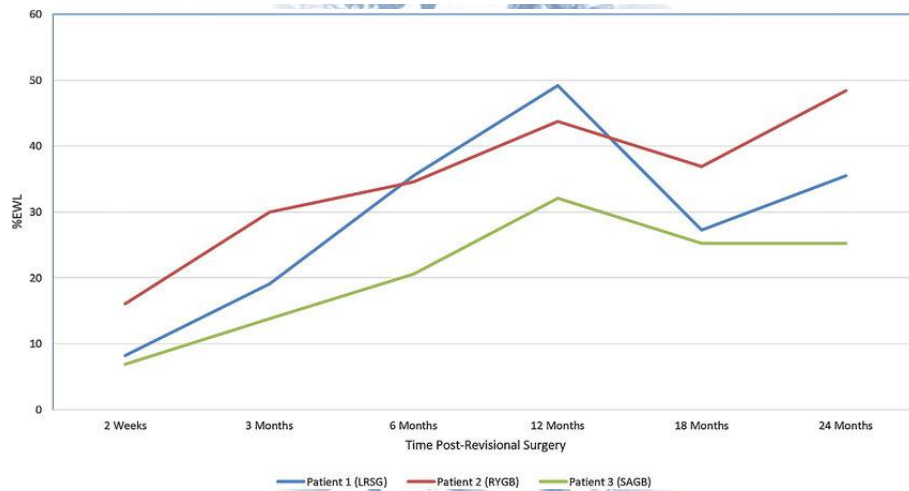
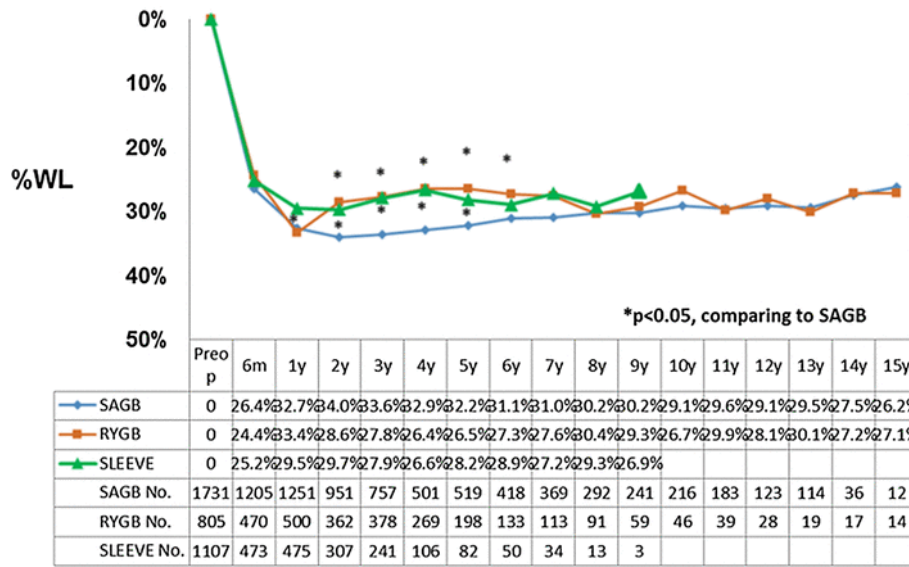
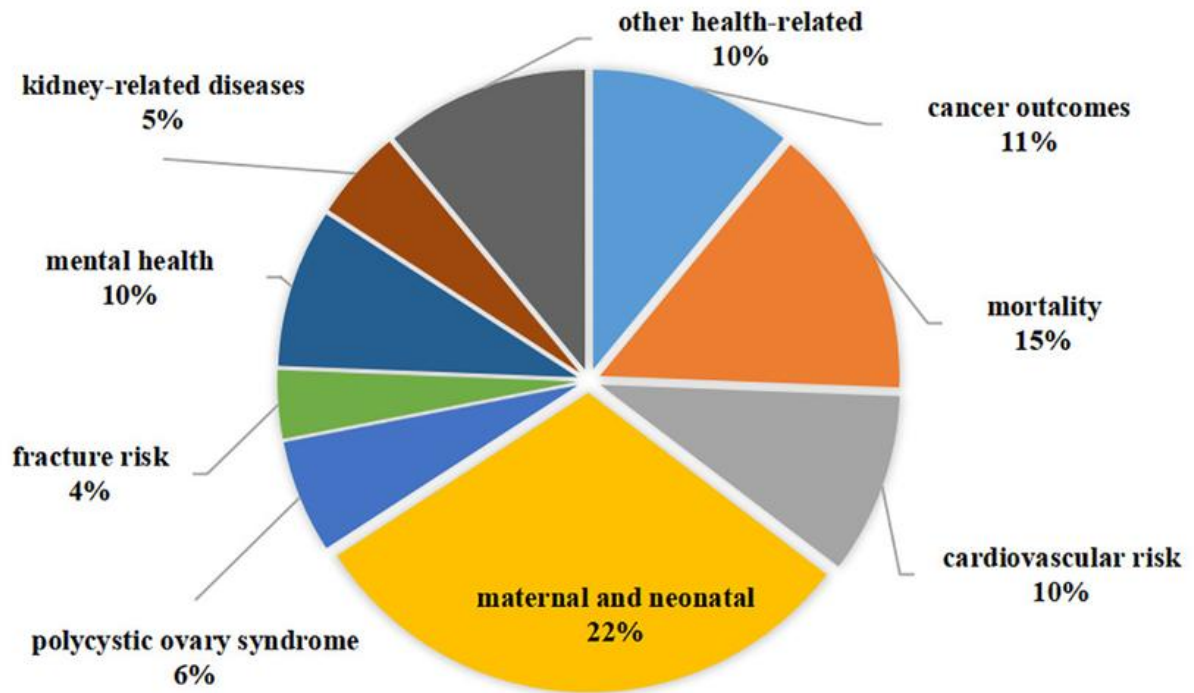
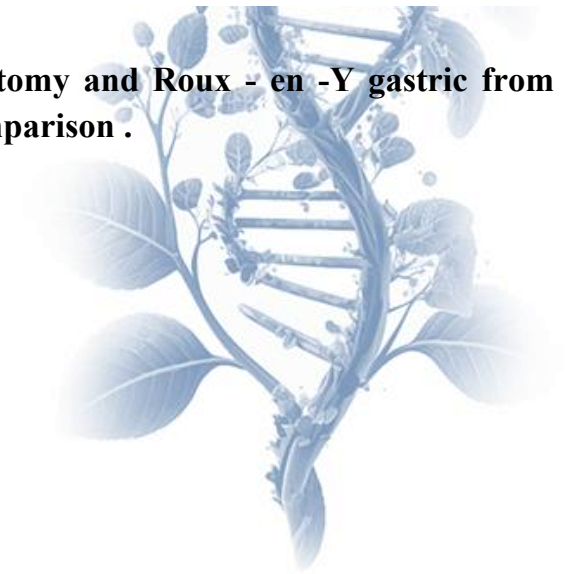


Figure 2. Roux-en-Y gastric bypass surgery combined (restrictive + malabsorptive) mechanism .





Picture 3. Sleeve gastrectomy and Roux - en -Y gastric from the bypass next excess weight loss dynamics comparison .



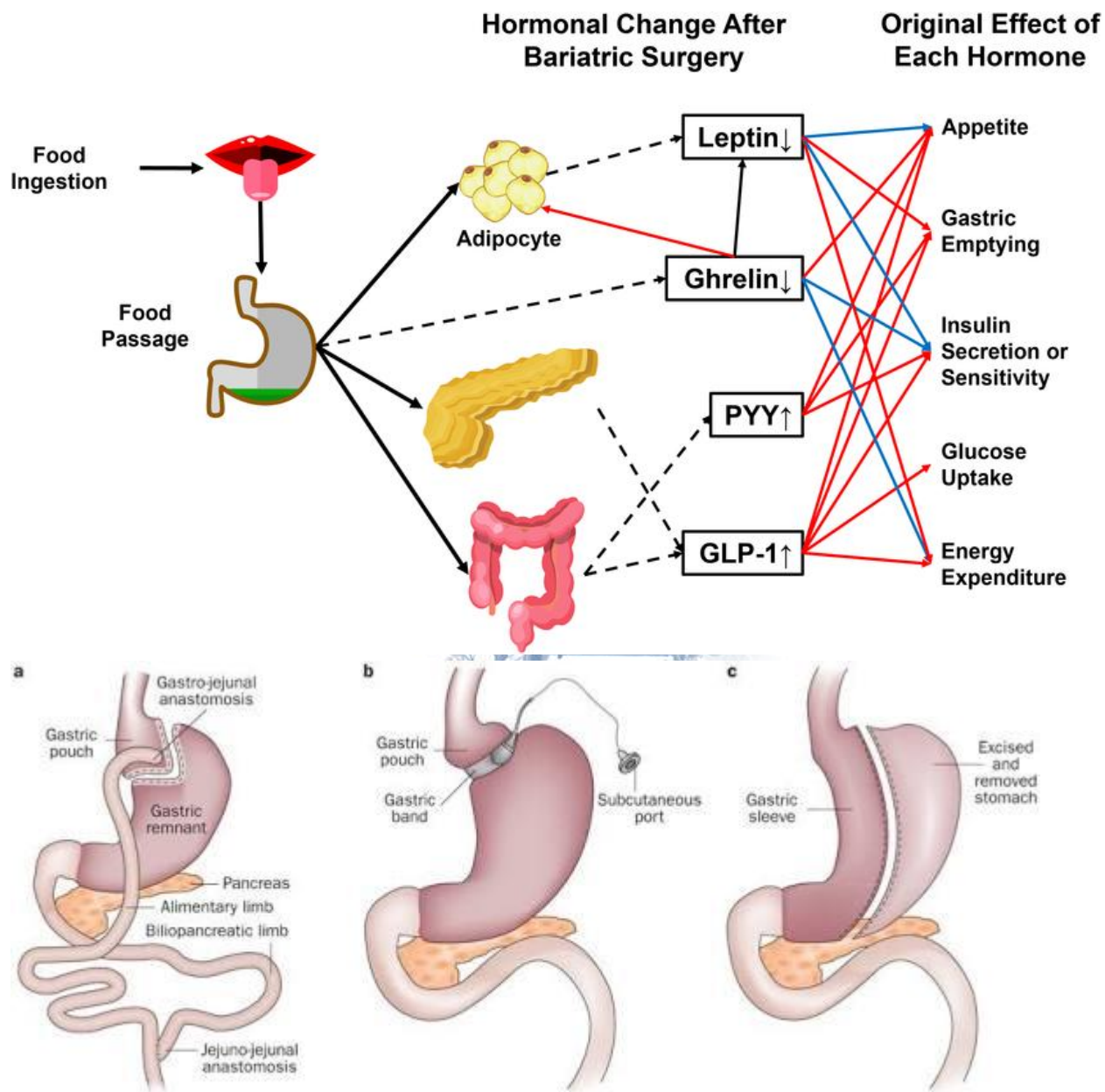


Figure 4. Bariatric from operations then incretin hormones and metabolic answer mechanisms .

RESULTS

Demographic indicators

Groups start indicators according to comparable was ($p > 0.05$). The average Age 37.9 ± 8.7 years .

Weight decrease

In 12 months :

- SG: BMI $41.2 \pm 4.3 \rightarrow 29.8 \pm 3.6$
- RYGB: BMI $42.1 \pm 4.8 \rightarrow 28.9 \pm 3.2$ ($p < 0.05$)

%EWL:

- SG — $66.1 \pm 11.4\%$
- RYGB — $72.4 \pm 12.1\%$ ($p = 0.03$)

Metabolic results

HbA1c decrease :

- SG — $-1.8 \pm 0.6\%$
- RYGB — $-2.4 \pm 0.7\%$ ($p = 0.01$)

Diabetes remission :

- SG — 54.2%
- RYGB — 68.4%

Lipid in profile every both in the group positive dynamics observed , but LDL reduction in RYGB deeper it has been .

Operative indicators

Operation duration :

- SG — 74 ± 18 min
- RYGB — 128 ± 27 min ($p < 0.001$)

In the hospital to lie down :

- SG — 3.1 days
- RYGB — 4.6 days

Complications

General complications :

- SG — 8.6%
- RYGB — 13.2%

Internal in RYGB hernias and anastomosis with related problems more met .

DISCUSSION

Research Results of sleeve gastrectomy and Roux-en-Y gastric bypass each both are effective bariatric methods that it is showed . RYGB of metabolic advantage incretin of the answer stronger to be and malabsorptive component with is explained . With this together

SG 's technician simplicity , operation of time brevity and complications profile low him/her wide to use opportunity gives .

Our results international research with suitable came and individual approach the necessity again one there is confirmed .

Conclusion

Sleeve gastrectomy and Roux-en-Y gastric bypass surgery obesity in treatment high to efficiency RYGB metabolic indicators according to advantage If it shows , SG is operational. security and technician convenience in terms of preferably is considered to be the optimal operation . type individual clinical selection requires an approach .

Research limitations

Research retrospective and one centered . Far term many centered research is required .

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