The American Journal of Medical Sciences and Pharmaceutical Research (ISSN – 2689-1026)
VOLUME 05 ISSUE 06 Pages: 105-109
SJIF IMPACT FACTOR (2020: 5. 286) (2021: 5. 64) (2022: 6. 319) (2023: 7. 396)
OCLC – 1121105510
Publisher: The USA Journals

Journal Website: https://theamericanjournals.com/index.php/tajmspr

Research Article

CURRENT PERSPECTIVES ON OPERATION MINIGASTROSHUNTING

Submission Date: June 20, 2023, Accepted Date: June 25, 2023,
Published Date: June 30, 2023 |
Crossref doi: https://doi.org/10.37547/TAJMSPR/Volume05Issue06-18

Teshayev Oktyabr Ruhillayevich
Professor, Doctor of Medical Sciences, Head of Surgical Diseases Department Tashkent Medical Academy, Uzbekistan

Mavlyanov Olimboy Razakovich
Professor, Doctor of Medical Sciences Surgical Diseases Department Tashkent Medical Academy, Uzbekistan

Tavasharov Bakhodir Nazarovich
PhD senior lecturer of Surgical Diseases Department Tashkent Medical Academy, Uzbekistan

ABSTRACT

Minigastric bypass is a relatively new bariatric operation that is an effective method for reducing body weight and controlling comorbidities. In minigastric bypass, a thin, narrow tube similar to the gastric sleeve in longitudinal gastric resection is excised from the stomach and a single anastomosis is placed between this sleeve and a loop of small intestine. About two metres of the small intestine is disconnected from digestion.

KEYWORDS

Minigastric bypass, bariatric surgery, gastric resections, small bowel, stomach.

INTRODUCTION

Mini-gastric bypass is a relatively new bariatric surgery. The first such operation was performed in 2001 to treat obesity and concomitant type 2 diabetes. The technique has proven to be effective. Today, minigastric bypass surgery is widely used in bariatrics for surgical treatment of obesity, metabolic syndrome, type 2 diabetes and other obesity-associated conditions.

Mini gastrostomy: the course of the operation:

Normally, food from the oesophagus enters the stomach and then enters the duodenum, from which it enters the jejunum (proximal small intestine). The duodenum plays an important role in the digestion of carbohydrates, proteins and fats, as it is here that the digestive enzymes from the pancreas and the bile acids

The American Journal of Medical Sciences and Pharmaceutical Research (ISSN – 2689-1026)
VOLUME 05 ISSUE 06 Pages: 105-109
SJIF IMPACT FACTOR (2020: 5. 286) (2021: 5. 64) (2022: 6. 319) (2023: 7. 396)
OCLC – 1121105510
Publisher: The USA Journals

necessary to digest fats are secreted. Mini gastrostomy reduces the volume of the stomach, changes the physiology of digestion and shortens the path of food through the upper gastrointestinal tract. As the stomach shrinks, it can no longer perform its depositing function. The food lump enters the small intestine directly, the duodenum is completely disconnected from the digestion process. After surgery, the breakdown and adsorption of nutrients begins only in the jejunum. The absorption of carbohydrate and fatty foods is incomplete. The patient absorbs fewer calories from the food and loses weight. The reduction of sugar and fatty acids absorption contributes to the normalisation of metabolic processes, including the correction of carbohydrate metabolism disorders present in type 2 diabetes.

Mini gastric bypass: surgery technique

In the first stage of the operation, the surgeon separates a small part of the stomach with a volume of up to 200 ml. This is how the doctor forms a 'small stomach', which is shaped like a tube. It is this part of the organ that takes part in the passage and digestion of food after the mini-gastric bypass. The jejunum is cut in two; its distal end is sutured to the 'small' stomach. This creates a gastrojejunoanastomosis, i.e. a junction between the stomach and the small intestine, through which food passes directly from the stomach to the jejunum. The proximal end of the jejunum is sutured to the small intestine below the formed gastrojejunoanastomosis. It connects the duodenum and most of the stomach, which has been disconnected from digestion, to the functioning part of the digestive tract. By changing the physiology of digestion, it is possible to significantly reduce the amount of food consumed and reduce the overall caloric content of the diet. This promotes weight loss and normalisation of metabolic processes, which is essential in the treatment of obesity and associated type 2 diabetes.

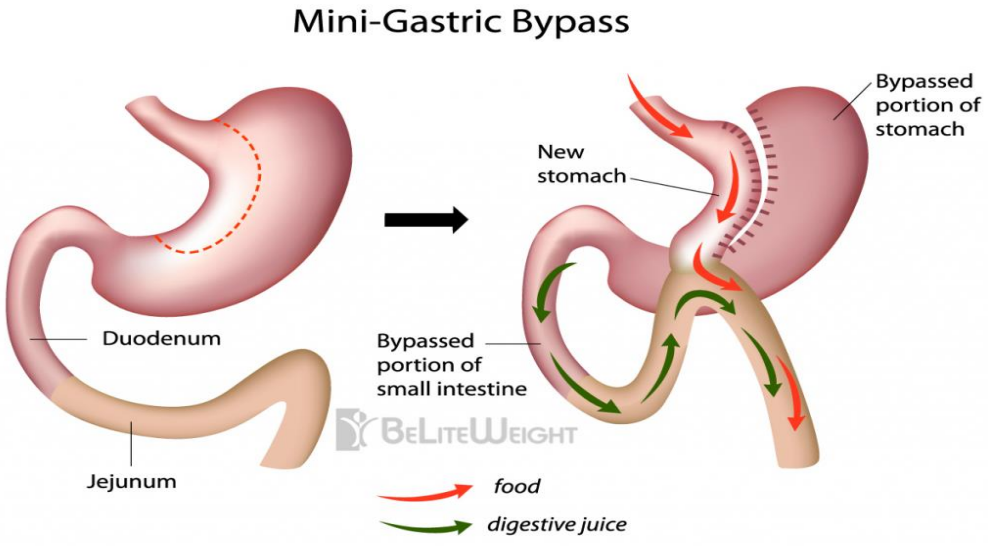

Figure 1: Minigastric bypass technique

The American Journal of Medical Sciences and Pharmaceutical Research
(ISSN – 2689-1026)
VOLUME 05 ISSUE 06 Pages: 105-109
SJIF IMPACT FACTOR (2020: 5. 286) (2021: 5. 64) (2022: 6. 319) (2023: 7. 396)
OCLC – 1121105510
Publisher: The USA Journals

Surgical conditions

- The surgery is performed under general anaesthesia, using laparoscopic techniques, stapling devices and other high-tech equipment, which allows for a quick recovery of the patient after the intervention and a minimised number of complications.
- Duration 1.5 to 2.5 hours
- After 2 to 3 hours, you will be on your feet and able to move independently.
- Fluid intake begins the next day
- After the operation, you may be visited by your relatives on the day
- Total hospital stay 3 to 5 days

Indication:

The indications for surgery are the same as for other bariatric surgeries, but MSH has been shown to be most effective in patients with a body mass index of 40-60 kg/m², especially in the background of diabetes mellitus.

Advantages .

1. By incorporating a malabsorptive component, minigastric bypass is more effective than sleeve gastrectomy, and more importantly, it has a more stable effect. The percentage of weight loss is stable and the lost kilograms do not return.

2 Relative to classic gastric bypass surgery, MSG has the advantage of being technically simpler, less anastomosis, less surgical complication rate with comparable results.

3. Nutritional impairment is lower than with classical gastrostomy and is rarely severe.

4. If necessary, minigastric bypass surgery can be converted to another operation.

Disadvantages:

1. As with other surgical procedures, it can have immediate surgical complications: bleeding, staple suture failure, infection, etc. Fortunately, complications are very rare, depending on the skill of the surgeon, the materials and instruments used and your compliance with our recommendations after surgery. Our clinic has world-class equipment and very experienced laparoscopic surgeons.

2. A lifelong intake of vitamins and micronutrients will be required in the post-operative period.

Indications for mini-gastric bypass surgery

Mini gastric bypass is a bariatric surgery to treat obesity and obesity-associated metabolic disorders. It may also be recommended for patients with type 2 diabetes without obesity.

An indication for minigastric bypass surgery is an increase in the BMI above 35. Family history, type of obesity, presence of diabetes and other comorbidities are always taken into account when assessing indications for surgery.

With a strong family history (presence of close relatives with obesity or diabetes mellitus) minigastric bypass surgery is indicated at lower BMI values (above 30).

Abdominal obesity with predominantly anterior abdominal wall fat deposition is considered a poor prognostic sign. If the patient is abdominally obese, minigastric bypass is performed when the BMI is > 30.

The American Journal of Medical Sciences and Pharmaceutical Research
(ISSN – 2689-1026)
VOLUME 05 ISSUE 06 Pages: 105-109
SJIF IMPACT FACTOR (2020: 5. 286) (2021: 5. 64) (2022: 6. 319) (2023: 7. 396)
OCLC – 1121105510
Publisher: The USA Journals

Type 2 diabetes, heart disease, and other obesity-associated conditions increase the risk of premature death many times over. A mini gastric bypass or other bariatric surgery is highly recommended for a patient with diagnosed comorbidities. Type 2 diabetes without obesity is another indication for minigastric bypass surgery. In slim patients, the operation helps normalise blood sugar without undesirable weight loss.

Effects of mini-gastric bypass surgery

The main effect of mini-gastric bypass surgery is to normalise metabolic processes. Clinical studies have shown that 95% of patients who have undergone the operation have normalised parameters of carbohydrate metabolism (fasting and postprandial blood sugar, glycated haemoglobin). Many patients with type 2 diabetes are able to get full glycaemic control without taking blood glucose-lowering drugs or other anti-diabetic drugs. Some stop taking insulin injections as early as 5-7 weeks after surgery. For people who are obese, mini-gastric bypass surgery can help them lose weight. The final result depends on the patient; if desired, weight can be completely normalised and excess weight removed once and for all. Mini gastric bypass: the difference from gastric bypass. Compared with classic gastric bypass surgery, mini-gastric bypass surgery has the following advantages. A lower percentage of operative and postoperative complications. The operation is done one and a half times faster, therefore the time under anaesthesia is reduced and anaesthetic risks are decreased.

Recovery is faster:

The surgery is suitable for both obese patients and thin people with type 2 diabetes.Recovery after mini-gastric bypass

Patient stays in hospital for several days. The length of hospital stay depends on the progress of recovery and the wishes of the patient. If the patient wants to go home sooner, he can do so on the third or fourth day if he is progressing well. If he or she wishes to be monitored by specialists for longer, he or she can stay in the clinic for 5-7 days.

In the early recovery period, physical activity is forbidden. It is strictly forbidden to lift weights or do any housework. A complete rest period of at least three weeks.

The main requirements for the diet - reduced portion sizes, the complete elimination of simple carbohydrates, avoiding fatty foods. Meals should be divided into portions, up to six times a day. Water must not be used with food.

Contraindications:

Mini-gastric bypass surgery is contraindicated in patients with oncological diseases, haemostasis pathology with reduced blood clotting, and severe somatic status. Bariatric surgery is not performed during lactation and pregnancy.

Conclusion: It is a very effective surgery in the treatment of diabetes mellitus. The previously known mechanisms of diabetes mellitus development and carbohydrate metabolism compensation have recently undergone major changes, including the impact of obesity surgery research. It was found that disconnecting the duodenum from the food passage very quickly leads to normalisation of carbohydrate metabolism in the blood, stimulates insulin production and restores its activity. Reducing the weight of the patient further intensifies and solidifies these processes. After the surgery, most patients never use antidiabetic drugs. Bariatric surgery is now part of the

The American Journal of Medical Sciences and Pharmaceutical Research (ISSN – 2689-1026)
VOLUME 05 ISSUE 06 Pages: 105-109
SJIF IMPACT FACTOR (2020: 5. 286) (2021: 5. 64) (2022: 6. 319) (2023: 7. 396)
OCLC – 1121105510
Publisher: The USA Journals

national guidelines for the treatment of diabetes mellitus.

REFERENCES

1. Яшков Ю.И. // Ожирение и метаболизм. 2008. - №3. - С.16-18.
2. Яшков Ю.И., Ершова Е.В. // Ожирение и метаболизм. - 2011. - №3. - С.13-17.
3. American Society for Bariatric Surgery: Bariatric surgery: ASBS guidelines. www.lapsurgery.com 2004.
4. Bernstein D. Cardiovascular physiology. In Morbid Obesity. Perioperative management / A. Alvarez. 2nd ed. - Cambridge, 2010.
5. Berrington de Gonzalez A., Hartge P., et al. // N. Engl. J. Med. - 2010. - Vol.363. - P. 2211-2219.
6. Buchwald H., Rudser K.D., Williams S.E., et al. // Ann. Surg. - 2010. - Vol.251. - P.1034-1040.
7. Ceppa E.P., Ceppa D.P., Omotosho P.A., et al. // Surg. Obes. Relat. Dis. - 2011-2012. - N8. -P.641-647.
8. Demaria E.J., Winegar D.A., Pate VW., et al. // Ann. Surg. - 2010. - Vol.252. - P.559-566.
9. dos Santos Moraes I.Jr., Madalosso C.A., Palma L.A., et al. // Obes. Surg. - 2009. - Vol.19. -P.281-286.
10. Frühbeck G., Toplak H., Woodward E., et al. // Obes. Facts. - 2013. - N6. - P.117-120.
11. Greenberg I., Sogg S., Perna FM. // Obesity. 2009. - Vol.17. - P.880-884.
12. Laville M., Romon M., Chavrier G., et al. // Obes. Surg. - 2005. - Vol.15. - P.1476-1480.
13. Neovius M., Narbro K., Keating C., et al. // JAMA. - 2012. - Vol.308. - P.1132-1141.
14. Sarwer D.B., Dilks R.J., West-Smith L. // Surg. Obes. Rel. Dis. - 2011. - N7. - P.644-651.
15. Talebpour M., Amoli B.S. // J. Laparoendosc Adv. Surg. Tech. A. - 2007. - Vol.17. - P.793-798.
16. The Diabetes Surgery Summit Consensus Conference: Recommendations for the evaluation and use of gastrointestinal surgery to treat type 2 diabetes // Ann. Surg. - 2010. - Vol.251, N3. -P.309-405.
17. OR Teshaev, US Ruziev, BK Shagazatova, NA Kudratova, // Efficacy of Gastric Bypass in the Treatment of Obesity-Associated Carbohydrate Metabolism Disorders AE Ataliev Indian Journal of Forensic Medicine & Toxicology 14 (4), 7995-8003
18. BK Shagazatova, OR Teshaev, NA Kudratova, US Ruziev //SURGICAL METHODS OF OBESITY TREATMENTS FOR LOWERING BODY MASS INDEX. Central Asian Journal of Medicine 2022 (1), 21-27
19. Teshaev, US Ruziev, AS Murodov, NA Zhumaev - THE EFFECTIVENESS OF BARIATRIC AND METABOLIC SURGERY IN THE TREATMENT OF OBESITY OR Toshkent tibbiyot akademiyasi axborotnomasi, 2019