УДК: 617.55-089.844/616-056.5+616-08-039.71

UNRESOLVED QUESTIONS FOR BARIATRIC SURGERY SURVEY RESTORERS

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Summary. Laparoscopic longitudinal resection of the stomach (LSG) is a relatively new restrictive bariatric surgery, the popularity of which is increasing every year. However, many issues related to the indications for this surgery, its complications and results require detailed consideration.
Key words: obesity, obesity treatment, bariatric surgery, laparoscopic longitudinal resection of the stomach, bariatric surgery, sleeve gastrectomy.

Relevance. Longitudinal gastrectomy (LG) (sleeve resection, sleeve gastrectomy) is a relatively new bariatric surgery, first described as a restrictive stage of the operation known since 1988 – biliopancreatic diversion/duodenal switch, hereinafter referred to as BPSh [1, 2,6,8,10,12,14,16,18]. It is known that in the 1990s, when performing open LG, it was necessary to divide technically complex operations into stages in some patients, limiting themselves to LG at the first stage. However, the surgeons who performed these operations (G. Anthone, P. Marceau, etc.) did not emphasize that LG can be a self-sufficient and, moreover, an innovative operation. Since 2000, as the laparoscopic technique of BPSH (M. Gagner) was mastered, RP has increasingly been performed as a deliberate first stage of surgery in patients suffering from extreme obesity with a high surgical risk. It turned out that many patients after RP lost weight so much that the need for the second stage of the operation (intestinal bypass) disappeared [3, 4,20,21,22,23,24,25,26].
During the period 2004–2009, slightly more than 18,000 RPs were performed worldwide, which amounted to only 5.3% of the total number of bariatric surgeries for that period, however, subsequently the frequency of RP use gradually continued to increase [11, 13,15, 17,19,27,28]. According to a survey of Uzbek bariatric surgeons in 2011, SG was the second most common bariatric surgery in Uzbekistan (33.9%), only slightly behind gastric banding (37.1%). According to the results of a survey presented by H. Buchwald at the IFSO World Congress in 2012, the frequency of this surgery in the world and Europe in 2011 was 27.8% [5]. Despite the fact that SG has been constantly discussed in recent years at all World and

regional congresses and even at special thematic events (Summits, Consensus on Sleeve Gastrectomy), many issues related to both the indications for this surgery and the technical nuances of its implementation have not yet been considered from a unified position. Thus, there is no consensus on the optimal diameter of the gastric tube, whether the antral part of the stomach should be left or resected, whether the gastric suture line should be peritonized or covered by other of the many proposed methods. There is also no consensus on the place of this operation among other known surgical techniques (banding, gastric bypass, biliopancreatic bypass, gastroplication, etc.). The results of comparative studies on weight correction and type 2 diabetes mellitus (T2DM) after PG are also quite contradictory. The contingent of patients who have undergone PG is also quite heterogeneous: from super obesity to patients with a body mass index (BMI) of less than 40 and even less than 35 kg/m2. The ambiguous results obtained in the analysis of fairly heterogeneous groups of patients do not provide a complete picture of the possibilities of this operation as an independent method of surgical treatment. The issue of using RP in children and adolescents, as well as in patients with type 2 diabetes with slight excess weight, is also controversial. And, perhaps, the least studied topic is the topic concerning the remote (10 years or more) results of RP, since there are no significant cohorts of patients who could be followed up in the specified time frame, especially in the absence of universal technical approaches and patient selection for this operation.

Objective. Evaluation of the effectiveness of RP in patients with different degrees of obesity, the frequency of early and late postoperative complications and possible side effects

Materials and methods. This work is based on an analysis of the results of examination and treatment of 159 patients with various types of external hernias of the anterior abdominal wall, who were examined and inpatiently treated in the 1st surgical department of the Bukhara Regional Multidisciplinary Medical Center and the Department of Thoracoabdominal Surgery of the Multidisciplinary Clinic of the Tashkent Medical Academy for the period from 2011 to 2023 The analyzed material included women of reproductive age who planned to have children in the future. The control group consisted of all women with hernias of the anterior abdominal wall who underwent traditional hernial orifice repair without the use of allomaterial. The main group is all women with hernias of the anterior abdominal wall who underwent alloplasty according to our recommendations.Research results and discussion.

he age of the patients operated on ranged from 16 to 68 years (mean age 39.1±10.7 years), the male/female ratio was 55:208, the average body weight of the patients

was 113.9±21.34 kg (from 81 to 171 kg), the average BMI was 40.1±6.1 (from 30.1 to 59.5) kg/m2.

Nevertheless, the overall group of patients seems to be quite heterogeneous, therefore, to analyze the results in terms of body weight loss, all patients operated on were divided into 5 groups depending on the initial BMI. The table presents only patients (n=218) for whom the results are known at the established control periods, starting from 3 months after the operation.

The analysis did not include patients who underwent open laparotomy, including the only patient who underwent conversion to laparotomy due to a pronounced adhesion process. The RP was performed for generally accepted indications in bariatric surgery: in patients with morbid obesity (BMI> 40 kg/m^2), or in patients with BMI> 35 kg/m^2 in the presence of obesity-associated diseases or socio-psychological factors associated with excess weight. In 139 patients who underwent RP (52.8%), the initial BMI was less than 40 kg/m^2, and in 45 it was less than 35 kg/m2. These were patients who had ever had a BMI over 40, patients with a lower BMI, and those who had medical problems associated with excess body weight, including diabetes. The latter was diagnosed in 25 (9.5%) patients. When determining the indications for surgery in patients with a BMI of less than 35 kg/m^2, we were guided by the provisions of the Interdisciplinary European Guidelines for Bariatric and Metabolic Surgery [6, 7]. To assess the treatment results, the percentage of excess body weight loss (% Excess Weight Loss, or % EWL) after surgery was calculated over time (lost body weight in kg/initial excess body weight in kg × 100%). There was no postoperative hospital mortality. In the early postoperative period (in the first 30 days after surgery), surgical complications were observed in 11 patients (4.2%) and included: gastric suture failure - 6 (2.3%), intra-abdominal bleeding - 4 (1.5%), perigastric abscess - 1 (0.4%). In 9 of the 11 cases, laparoscopic revision was required to eliminate complications. In one patient, leakage was diagnosed the day after surgery by characteristic discharge through the drainage and verified after a methylene blue test. After suturing the hole in the body of the stomach, the patient recovered without further complications. In another patient, the development of a covered leakage of the suture in the body of the stomach was diagnosed on the 4th day at the site of stapler suturing of the tube during surgery. In this observation, in conditions of delimitation of the leakage zone, surgical revision was not required, recovery occurred after conservative treatment under conditions of total parenteral nutrition and nasogastric decompression. The patient was discharged from the clinic on the 7th day after the surgery. In three cases of suture failure on the 4th to 8th day after surgery, sanitation laparoscopy was performed with drainage of the failure zone

and leaks, and the transfer of patients to parenteral nutrition under nasogastric decompression. Attempts to suture the failure zone in the upper part of the stomach during revision were unsuccessful in these cases. Closure of the chronic fistula was noted at 7 months after PRZh. Treatment of another patient took about 3 months; fistula closure was achieved after repeated sessions of endoscopic administration of adhesive substance. In other cases, fistulas closed spontaneously, without additional manipulations, within 2 weeks to 6 months. Intra-abdominal bleeding, for which revisions were performed, usually occurred from trocar punctures and no longer continued by the time of revision. During the sanitation, blood clots were removed, hemostasis was achieved in the area of possible sources of bleeding. The maximum average weight loss was observed 2 years after the PRZ (75.3±25.9), with the result deteriorating slightly thereafter (63.7±26.9 after 5 years and 61.2±34.9 after 6 years after the surgery). The percentage of excess weight loss varied in the groups depending on the initial BMI. Excellent results, i.e. the final weight approaching the ideal characteristics, with one postoperative complication (2.5%) were demonstrated in the group of patients with an initial BMI of less than 35. It should be noted that the result of the surgery in this group was the most stable (% EWL after 48 months 91.7±29.3%). As the BMI increased, the maximum % EWL decreased, on the other hand, the tendency to regain the lost weight after reaching the maximum values became more pronounced. Thus, the loss of excess body weight 36 months after RP in patients with a BMI of 45 to 50 kg/m^2 was 46±3.3%, and in patients with a BMI>50 kg/m^2 – only 34.4±6.2%.

Conclusions: 1.PRZH is a promising, fairly safe and effective surgery for obesity, which can be considered both as an independent surgery and as the first stage of more complex bariatric surgeries.

2. The maximum average percentage of excess body weight loss after PRZH was 75% within 12-24 months after surgery and depended on the initial BMI: with an increase in BMI, this figure decreases.

3. In case of extreme obesity, the maximum rates of body weight loss (50.2%) are observed one year after surgery, after which there is a clear tendency for them to worsen.

4. In patients with an initial BMI<35, by the end of the first year, body weight indicators close to ideal were achieved. Patients maintained the achieved result even 5 years after surgery, which justifies the use of PRZH in this group of patients.

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