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APPLICATION OF THE HESS-MARCEAU BILIOPANCREATIC DIVERSION PROCEDURE IN THE TREATMENT OF MORBID OBESITY

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Summary. The paper presents material on the problem of surgical treatment of patients with severe forms of obesity. Based on factual material, an assessment is given of the methods of combined bariatric operations used by the authors.

Key words: obesity, obesity treatment, bariatric surgery, laparoscopic longitudinal resection of the stomach, bariatric surgery, sleeve gastrectomy, gastric bypass, longitudinal resection of the stomach in combination with small intestinal bypass.

Relevance. Overweight and obesity are recognized health problems all over the world [1,2]. The World Health Organization has called for obesity problems to be characterized as a non-communicable disease epidemic, since more than 1 billion people have been registered with this pathology to date. The problem of obesity affects both developed and economically developing countries. It has already been proven that every tenth inhabitant of the planet is overweight. Against this background, the number of patients with metabolic syndrome has already reached 10% [1,2,6,8,10]. The problem of overweight and obesity requires close attention, since they are triggers in the development of numerous concomitant diseases in various body systems [1]. At the same time, such concomitant diseases as metabolic syndrome, diabetes mellitus, coronary heart disease, non-alcoholic fatty liver disease are characterized by damage to vital organs. Treatment of such diseases today requires large expenditures in the health care system in all countries [1,2,6,8,10]. Morbid obesity is also characterized by complications in the form of gallbladder disease, gastroesophageal reflux, obstructive sleep apnea, reproductive system disorders, and the development of osteoarthritis. All of them, having a negative impact on the quality of life, can significantly reduce life expectancy.

In the studies of N.M. Iyengar et al. (2016) it was proven that the prevalence of many types of cancer (such as breast, colon, prostate, endometrium, kidney and gallbladder cancer) occurs among obese patients [1,2]. Also, in a number of other studies a close relationship was traced between the growth of social and psychological problems

among obese patients and the increase in the level of body mass index [1,2,6,8,10]. It was proven that the health risk increases fivefold for people with a body mass index of 25 kg/m², 28 times for a body mass index of 30 kg/m² and 93 times for a BMI of 34.9 kg/m² or more. In this regard, the European clinical guidelines recommend a programmatic approach to the treatment of patients with obesity, which should consist of an integrated multidisciplinary option, patient-oriented, including lifestyle interventions, along with pharmacological therapy and bariatric surgery [3,4,20,21,22]. In recent years, there has been an increased interest in surgical methods for the treatment of severe forms of obesity and associated diseases, including type II diabetes mellitus. It has been proven that long-term results of the treatment of pathological obesity are influenced by surgical methods of treatment [9, 11]. Indications for surgery correspond to very specific criteria: the presence of a BMI > 40 kg / m² (regardless of the presence of concomitant pathology), or a BMI > 35 kg / m² in the presence of one or more diseases, the course of which can be influenced by weight loss [11,13,15]. The gastric bypass operation was first proposed in 1966 by E. Mason [1,23,24,25,26]. The technique was further modified in the works of W. Griffen, M. Fobi, J. Capella and R. Capella, J. Torres and C. Oca, R. Brolin, and others. Distal gastric bypass implies the presence of an aggressive shunting component, when the interintestinal anastomosis is located at a distance of 50-100 cm from the ileocecal angle.

However, despite good results in terms of weight loss, bariatric surgeries are associated with disruption of the physiologically balanced and holistic digestion process, and therefore are not without the development of a number of long-term metabolic complications.

Purpose of the study. The goals of surgical treatment of obesity: to influence the course of diseases and improve the quality of life of patients with obesity by significantly reducing MT.

Materials and methods. This work is based on an analysis of the results of examination and treatment of 49 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.

The study was performed in 8 patients. Immediately below the level of the first branch of the left gastric artery, on the side of the lesser curvature, a "window" was formed in the peritoneum. Through it, using devices (either Echelon Flex™, or Endo-Gia Universal, or Ethicon EndoSurgery Linear Cutter), the stomach was transected. A small ventricle with a volume of about 30 ml was formed. The greater part of the stomach, remaining in the abdominal cavity, was additionally peritonized. In order to maximally shorten the length of the segment of the small intestine excluded by Roux Y, it was transected 30 cm from the ligament of Treitz. The diverting segment of the intestine was passed through a pre-formed opening in the mesocolon mesentery and a gastroenteroanastomosis with a diameter of up to 1.2 cm was applied according to the retrocolica posterior type. Then, an end-to-side jejunioileal anastomosis was formed between the proximal jejunum (30 cm) and the ileum, at a distance of 70 cm from the ileocecal angle. In 5 patients, sleeve gastrectomy was combined with distal small intestinal bypass. In fact, the creation of a narrow gastric tube while maintaining the physiological integrity of the stomach is a remarkable alternative for a large group of patients, mainly with a body mass index of less than 40 kg/m² [6]. When using the technique in patients with a BMI > 40 kg/m², sleeve resection was supplemented with distal jejunioileal anastomosis, since it is the presence of a bypass component that allows for effective and stable normalization of lipid and carbohydrate metabolism disorders [2, 3]. The greater curvature of the stomach was mobilized along its entire length using the Liga Sure™ system. Then, the stomach was transected longitudinally using a 40 Fr probe, 3 cm from the pylorus and directly to the angle of His. Ethicon Endo-Surgery Linear Cutter or Echelon Flex™ linear suturing devices were used. After removal of the severed portion of the stomach, the probe was changed to 32 Fr and peritonization was performed using a continuous wrap suture. For this, Vicryl 3/0 or V-Lok 3/0 was used. A leak test was mandatory. Thus, the stomach was transformed into a narrow tube with a volume of 80-100 ml. After formation of the gastric tube, the jejunum was transected 50 cm from the Treitz ligament and subsequent jejunioileal anastomosis was performed 70 cm from the ileocecal angle, depending on the BMI. To assess weight loss, the formula for determining the percentage of excess weight loss (%EWL) was used.

Research results and discussion. In almost all cases, the formation of a small stomach and the imposition of a gastroenteroanastomosis were accompanied by technical difficulties due to excessive development of visceral fat and the depth of

the surgical field. Sleeve resection is technically simpler than gastric bypass anastomosis; it does not require the imposition of a gastroenteroanastomosis, but it required additional costs for cassettes for the suturing and cutting devices (6-7 60 mm cassettes for Endo Gia or Echelon Flex for longitudinal resection versus 2-3 for gastric bypass) and additional peritonization of the entire resection zone. The "weak point" in this case is the possible failure of the gastric tube suture. The average operating time, regardless of the technique, was 3 hours. The effectiveness of combined operations is associated not only with weight loss, but also with the redirection of the movement of food masses, which bypass the stomach and go directly to the distal parts of the small intestine, which prevents the interaction of bile and pancreatic enzymes with chyme. Incretins play an important role in this, including glucose-dependent insulinotropic polypeptide (GIP) and glucagon-like peptide-1 (GLP-1), peptide YY, ghrelin, leptin, resistin [4, 10]. It is this complex endocrine effect that makes combined operations a powerful tool not only for long-term weight loss, but also for the successful treatment of conditions that determine metabolic syndrome. Early postoperative complications included failure of the gastric tube sutures and the formed "small" ventricle (2 cases - 15.4%). In the first observation, a patient with a BMI of 65.0 kg/m² developed gastric suture failure and diffuse peritonitis. This required sealing of the suture line and repeated sanitation of the abdominal cavity. Death occurred on the 21st day against the background of the development of multiple organ failure. In the second case (BMI 63.5 kg/m²), the limited nature of the failure did not require repeated intervention. Conservative treatment for 26 days led to closure of the fistula and recovery of the patient.

Conclusions: 1. Combined surgeries are effective in patients with morbid obesity.
2. In patients with a BMI of more than 50 kg/m², the choice of surgery option is determined individually.

LITERATURE

1. Spaziani T.S., Di Cello P., Lo Bianco G. "All In One Mesh Hernioplasty" device for inguinal hernia repair. Results of 400 cases // Ann. Ital. Chir. – 2018. – Vol. 89. – P. 438–442.
2. Steensel S., Hil L., Bloemen A. Prevention of incisional hernia using different suture materials for closing the abdominal wall: a comparison of PDS, Vicryl and Prolene in a rat model // Hernia. – 2020. – Vol. 24, № 1. – P. 67-78.
3. Khamdamov I.B. Improving tactical approaches in the treatment of hernias of the anterior abdominal wall in women of fertile age // New day in medicine. Bukhoro, 2022.-№10(48)- P. 338-342.

4. Khamdamov I.B. Morphofunctional features of the abdominal press in women of reproductive age // *New day in medicine*. Bukhoro, 2022.-№3(41)- P. 223-227.
5. Khamdamov I.B. Clinical evaluation of the effectiveness of the traditional approach to the treatment of hernias of the anterior abdominal wall in women of fertile age // *Doctor's Bulletin*. –Samarkand 2022. No. 2.2 (104).-P.65-70.
6. Khamdamova M.T. Ultrasound features of three-dimensional echography in assessing the condition of the endometrium and uterine cavity in women of the first period of middle age using intrauterine contraceptives // *Biology va tibbyot muammolari*. - Samarkand, 2020. - No. 2 (118). - P.127-131.
7. Khamdamova M. T. Ultrasound assessment of changes in the endometrium of the uterus in women of the first and second period of middle age when using intrauterine and oral contraceptives // *Biomeditsina va amaliyot jurnali*. – Tashkent, 2020. - №2. - 8 частъ. - P.79-85.
8. Khamdamov I.B., Khamdamov A.B. Yendovideosurgical hernioplasty in women of fertile age // *New day in medicine*. 2021. №6 (38/1).P.25-27.
9. Khamdamova M. T. Anthropometric characteristics of the physical status of women in the first and second period of middle age // *New day in medicine*. Tashkent, 2020. - № 1 (29). - P.98-100.
10. Khamdamov I.B., Khamdamov A.B. Slassification and properties of mesh explants for hernioplasty of hernial defects of the anterior abdominal wall (review) // *Biology and integrative medicine*. ISSN 2181-8827 2021. №5 – March, April (52).P.12-22.
11. Khamdamova M.T. Age-related and individual variability of the shape and size of the uterus according to morphological and ultrasound studies // *News of dermatovenereology and reproductive health*. - Tashkent, 2020. - No. 1-2 (88-80). - P.49-52.
12. Khamdamova M.T. Ultrasound features of three-dimensional echography in assessing the condition of the endometrium and uterine cavity in women of the first period of middle age using intrauterine contraceptives // *Biology va tibbyot muammolari*. - Samarkand, 2020. - No. 2 (118). - P.127-131.
13. Khamdamova M. T. Ultrasound assessment of changes in the endometrium of the uterus in women of the first and second period of middle age when using intrauterine and oral contraceptives // *Biomeditsina va amaliyot jurnali*. – Tashkent, 2020. - №2. - 8 частъ. - P.79-85.
14. Khamdamova M. T. Anthropometric characteristics of the physical status of women in the first and second period of middle age // *A new day in medicine*. Tashkent, 2020. - № 1 (29). - P.98-100.

14. Khamdamova M.T. Age-related and individual variability of the shape and size of the uterus according to morphological and ultrasound studies // News of dermatovenereology and reproductive health. - Tashkent, 2020. - No. 1-2 (88-80). - P.49-52.
15. Khamdamova M.T. Features of ultrasound parameters of the uterus in women of the first and second period of middle age using injection contraceptives // New day in medicine. Bukhara, 2020. - No. 2/1 (29/1). - R.154-156.
16. Khamdamova M.T. Features of ultrasound images of the uterus and ovaries in women of the second period of middle age using combined oral contraceptives // New day in medicine. Bukhara, 2020. - No. 2 (30). - P. 258-261.
17. Khamdamova M.T. Individual variability of the uterus and ovaries in women who use and do not use various types of contraceptives // New day in medicine. Bukhara, 2020. - No. 3 (31). - P. 519-526.
18. Khamdamova M. T. Yechographic features variability in the size and shape of the uterus and ovaries in women of the second period of adulthood using various contraceptives // Asian Journal of Multidimensional Research - 2020. – N9 (5). - P.259-263.
19. Khamdamova M. T. Somatometric characteristics of women of the first and second period of adulthood using different contraceptives with different body types // The american journal of medical sciences and pharmaceutical research - 2020. – N8 (2). - P.69-76.
20. Khamdamova M.T., Zhaloldinova M.M., Khamdamov I.B. The state of nitric oxide in blood serum in patients with cutaneous leishmaniasis // New day in medicine. Bukhara, 2023. - No. 5 (55). - P. 638-643.
21. Khamdamova M.T., Zhaloldinova M.M., Khamdamov I.B. The value of ceruloplasmin and copper in blood serum in women wearing copper-containing intrauterine device // New day in medicine. Bukhara, 2023. - No. 6 (56). - pp. 2-7.
22. Khamdamova M. T. Bleeding when wearing intrauterine contraceptives and their relationship with the nitric oxide system // American journal of pediatric medicine and health sciences Volume 01, Issue 07, 2023 ISSN (E): 2993-2149. R.58-62
23. Khamdamova M. T. The state of local immunity in background diseases of the cervix // Eurasian journal of medical and natural sciences Innovative Academy Research Support Center. Volume 3 Issue 1, January 2023 ISSN 2181-287X R.171-175.
24. Khamdamova M.T., Khasanova M.T. Various mechanisms of pathogenesis of endometrial hyperplasia in postmenopausal women (literature review) // New day in medicine. Bukhara. 2023. - No. 8 (58). - P. 103-107.

24. Khamdamova M.T. Reproductive Health of Women Using Copper-Containing Intrauterine Contraception // Eurasian Medical Research Periodical Volume 28 January 2024, ISSN: 2795-7624 .www.geniusjournals.org P. 39-45.
25. Khamdamov I.B. Advantages Of Laparoscopic Hernioplasty in Obesity Women of Fertile Age // Eurasian Medical Research Periodical Volume 28 January 2024, ISSN: 2795-7624 .www.geniusjournals.org P. 33-38.
26. Khamdamova M.T., Akramova D. E. Генетические аспекты генитального пролапса у женщин репродуктивного возраста // New day in medicine. Bukhara, 2023. - No. 5 (55). - R. 638-643.