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IRON DEFICIENCY ANEMIA AFTER BYPASS SURGERY

Khamdamov I.B.

*PhD, docent at the Department of Surgical Diseases
Bukhara State Medical University named after Abu Ali Ibn Sina*

Summary. All patients who have undergone BPSH and PRZh operations require daily oral iron supplementation at a minimum dose of 100 mg (in terms of elemental iron). In the case of development of ACD in a patient, in the absence of iron deficiency, taking iron supplements is inappropriate. Treatment in this case should be aimed at stopping the chronic inflammatory process in the remodeled small intestine.

Key words: obesity, obesity treatment, bariatric surgery, laparoscopic longitudinal resection of the stomach, bariatric surgery, sleeve gastrectomy.

Relevance. Currently, a real "epidemic" of obesity has engulfed developed and developing countries [3,4,20,21,22]. According to the World Health Organization (2008), about 1.4 billion adults (over 20 years old) of the planet's population are overweight, and about 500 million people (approximately 200 million men and almost 300 million women) suffer from obesity [23,24,25,26]. According to the classification of the World Health Organization, the term morbid obesity is used for people whose BMI is greater than 40 [1,4]. Obesity increases the likelihood of developing the following diseases: diabetes mellitus, arterial hypertension, acute cerebrovascular accident, dyslipidemia, sleep apnea syndrome, cancer, non-alcoholic steatohepatitis, etc. According to the World Health Organization, 44% of patients with diabetes, 23% with ischemic stroke, and 7-41% of patients with various forms of cancer are overweight or obese [1]. In most European countries, 80% of type 2 diabetes, 35% of coronary heart disease, and 55% of hypertension among adults are a consequence of obesity [9]. In addition, the treatment of obesity-related diseases such as osteoarthritis, sleep apnea syndrome, infertility, depression, and cholelithiasis require significant financial costs [12,14,16,18]. The results of conservative methods of treating obesity remain unsatisfactory: only 5-10% of patients manage to lose weight and maintain the result. The vast majority of obese individuals, despite the prescribed diet, exercise and drug therapy,

experience an increase in body weight by 1.6-2% per year [7]. Thus, the only truly effective method of treating morbid obesity at present is bariatric surgery. Bariatric surgeries significantly reduce both the incidence of obesity-related diseases and patient mortality. In addition, they can significantly reduce the financial costs of treating obesity-related diseases [1,2,6,8,10]. One of the most common pathogenetic variants of anemia after operations with a malabsorptive component is iron deficiency anemia (IDA) [11, 13,15]. According to most researchers, iron deficiency develops in 6% of cases within a few months after surgery, and years later, IDA is diagnosed in 50% of patients [17,19,27]. 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 remote metabolic complications.

Purpose of the study. Optimize algorithms for examination and treatment of patients with anemia after various types of bariatric surgeries

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.

In 24 of 80 patients (30%) observed by us, the dynamics of hemoglobin indices allowed us to diagnose IDA (hemoglobin below 120 g/l, decreased serum iron and ferritin indices). IDA was diagnosed at different times after BPSH: after 3 months (2 patients), after 6 months (4 patients), after 9 months (3 patients), after 1 year (8 patients), after 1.5 years (2 patients), after 2 years (3 patients), after 4 years (1 patient), after 5 years (1 patient). Different periods of IDA development after surgery can be determined by the amount of initial iron reserves in the body of patients who underwent surgery. Indeed, the overwhelming majority of patients (75%) with IDA were found to have risk factors for its development (in 18 out of 24 people). While 55 only 26.8% without IDA had risk factors for its development

(15 people out of 56). One patient could have several risk factors. Thus, 5 years after BPS, the average hemoglobin level in patients with risk factors decreased by 27%, and in patients without risk factors - by 12.6%. A similar trend was also noted in changes in serum iron and ferritin levels. Despite the fact that initially there were no significant differences between the 2 groups of patients in the average ferritin and serum iron levels, however, already 3 months after BPS, patients with risk factors showed lower serum iron levels, and 6 months - ferritin. Five years after BPSH, the average serum iron level in patients with risk factors decreased by 58.4% and ferritin by 77.9%, while in patients without risk factors, the serum iron level decreased by 25.8% and ferritin by 27.3%. The vast majority of patients with IDA (66.7%, 16 out of 24) did not take PG (at the rate of 100 mg of elemental iron per day) after BPSH or took them for no more than 2 months after surgery, and stopped the treatment on their own. Among the observed patients without IDA, only 26.8% (15 out of 56) did not take PG. Patients who did not take PG had significantly lower hemoglobin levels starting from year 4 after BPSH, lower serum iron levels starting from year 3, and lower ferritin levels after 6 months. Thus, 5 years after BPS, in patients who did not take PG, the hemoglobin level decreased by 26.6%, and in patients who took PG, by 14.2%. 5 years after BPS, in patients who did not take PG, the level of serum iron decreased by 61.8%, ferritin - by 77.5%, while in patients who took PG, the level of serum iron decreased by 28.5%, ferritin - by 40.9%. However, 33.3% of patients (8 people out of 24) who regularly took PG developed IDA.

Conclusions: After the BPSH operation, all patients showed a significant decrease in the level of hemoglobin, ferritin and serum iron, starting from the 3rd month after the operation and progressively continuing throughout the entire observation period of the patients (7 years).

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