

STUDY OF NAFLD DYNAMICS USING FIBROSCAN IN THE CONTEXT OF BARIATRIC SURGERY

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Relevance. In recent years, bariatric surgery has become increasingly popular. One of the rapidly developing methods of surgical treatment is mini-gastric bypass surgery with the creation of a single hardware gastroenteroanastomosis with jejunum at a distance of 140-200 cm from the ligament of the Treitz, which gives good results when combined with obesity and type 2 diabetes. However, the issue of the effect of metabolic surgery on the condition of other organs and systems remains unresolved.

Goal. To study the condition of the liver in obese patients before and after bariatric surgery using the fibroscanning method, as well as to compare the effectiveness of gastroschunt and resection on the condition of the liver in non-alcoholic fatty liver disease (NAFLD) in Uzbekistan.

Materials and methods. The study was conducted on the basis of the Department of Endocrinology THERE and the CHEKA Medion Family Hospital, where surgical interventions were performed. The study included 44 patients who underwent bariatric surgery between 2022 and 2024. The average age of the patients was 38.59 ± 8.77 years, 4 men (9.1%) and 40 women (90.9%). The average weight of the patients was 108.88 ± 15.70 kg, and the BMI before surgery was 40.19 ± 5.97 kg/m².

The patients were divided into two groups depending on the method of surgical intervention: gastroschunt (n=19) and resection (n=25). The liver condition was assessed using the FibroScan touch 502 device manufactured in France for non-invasive determination of the degree of liver fibrosis by transient elastometry, as well as measurement of ultrasound attenuation: CAP™ (option) - determination of the level of steatosis (sensitive and objective test). This method allows the diagnosis of an early stage of fibrosis corresponding to F1 according to METAVIR, makes it possible to diagnose the disease as early as possible and decide on therapy. The specificity and sensitivity of the method at the stages of fibrosis F3/F4 is approaching 100%. FibroScan makes it possible to select patients with advanced fibrosis for antiviral therapy as a matter of priority, taking into account the immediate risks of negative prospects. The volume under study is 100-200 times larger than in a liver biopsy. The comparative analysis was carried out before and

after surgical interventions. The follow-up period of the patients was 24 months.

Results: Changes in body mass index (BMI) and liver condition in obese patients before and after various types of surgery were analyzed. The dynamics of BMI before surgery and at various times after surgery in patients undergoing drain resection (CP) and gastroshunt (GS). Studies demonstrate that, however, resection and gastric bypass surgery provide a significant reduction in BMI, confirmed by statistically significant data. The BMI after 3, 6 months, 1 year and 2 years, confirming their effectiveness in the fight against obesity. In addition, T. Poghosyan and his team found a statistically significant difference ($P < 0.01$) in BMI before and after surgery, emphasizing the high effectiveness of both CP and GS

Conclusions: Studying the comparative characteristics of the liver condition in the surgical intervention groups before and after surgery, we came to the conclusion that the values of E and CAP after surgery decreased significantly in both groups, which indicates an improvement in the liver condition after bariatric surgery