

RESULTS AND POSTOPERATIVE COMPLICATIONS OF LASER VAPORIZATION IN A WOMAN IN LABOR

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Introduction: Currently, chronic hemorrhoids are most common in the age group of 4 to 18 years [Altomare DF.,2019]. Among women, hemorrhoids are common as follows: 25-35 years - 17.6%, 36-45 years - 21.5%, 46-55 years - 31.3%, 56-65 years - 13.7%, 66-85 years - 5.8%. The majority of patients are of working age up to 40 years [Giannini I.,2017]. In the structure of proctological diseases, hemorrhoidal disease accounts for 34 to 41% of cases. According to the literature, hemorrhoidal disease affects 5 to 25% of the world's population [VashistY.K.,2022].

Modern medicine sets itself the task of developing innovative approaches and implementing minimally invasive methods of treating acute and chronic forms of hemorrhoids both in inpatient and outpatient settings. This area of work allows for effective clinical diagnosis, comprehensive medical care, and significant reduction in treatment costs for women in the postpartum period[ThieltgesS.,2023].

The aim of our study: To compare the outcomes and postoperative complications of laser vaporization of hemorrhoids with the traditional method in women in the postpartum period.

Materials and methods of the study:During the study, the data of 67 women who had given birth were referred for surgical treatment from the State Health Institution on the Right of Economic Management "Polyclinic No. 1 of Semey" to the surgical department of the University Hospital of the Non-Commercial Joint-Stock Company "Semey Medical University, in the period from 2023 to 2024. The age of women ranged from 19 to 43 years, the average age was 26.1 ± 1.7 years. The duration of the disease ranged from 11 months to 15 years. All women who had given birth were divided into two study groups: the main 47.8% (n = 32) and the control 52.2% (n = 35), depending on the methods of surgical intervention used.

The main group included 32 (47.8%)women who had given birth with chronic hemorrhoids, operated on using an improved technique - laser vaporization (LV). The age ranged from 20 to 43 years old, the average age was 26.3 ± 2.2 years. The duration of the disease ranged from one year to 12 years. For vaporization of hemorrhoids, an end light guide was used, connected to the laser device "LAMI-Gelios" (Russia). This device worked in the water-specific range (W-range) with a wavelength of 1.56 μm , using a power of 7 W and a pulse mode of 0.5 seconds / 0.5 seconds.

The control group included 35 (52.2%) women who had given birth to chronic hemorrhoids and were operated on using the traditional method of Mlligan-Morgan (MM) of the Proctology Research Institute II. The age of the patients ranged from 19 to 39 years, the average age was 25.9 ± 1.3 years. The duration of the disease ranged from 11months to 12years.

According to the GOLIGHER classification, the severity of the disease was distributed

as follows: stage II – 29 (53.7%), stage III – 25 (46.3%) women with chronic hemorrhoids who had given birth.

The effectiveness of the treatment was determined by conducting a comparative assessment between these two study groups (distribution of women who had given birth into groups was performed randomly). All patients underwent sacral anesthesia with 2% Lidocaine, as well as rectal drainage.

Results and discussion: In the main group, the duration of surgery for chronic hemorrhoids ranged from 14 to 20 minutes (on average, 16.3 ± 1.2 minutes). After laser vaporization of hypertrophied hemorrhoidal tissue, all patients showed a decrease in the size of hemorrhoids by 4-5 times). The average hospitalization time for such operations ranged from 2 to 5 days (3.1 ± 0.4). The postoperative period was typical for most. The following complications were noted in the postoperative period in 3 (9.3%) cases: bleeding from the puncture site - 1 (3.1%), in 2 (6.2%) cases, tissue swelling in the laser exposure zone was noted on the 3rd day after surgery. The dependence of tissue swelling on the volume of submucosal anesthetic solution was noted. In the control group, the duration of surgery for chronic hemorrhoids ranged from 45 to 78 minutes (on average, 57.3 ± 1.2 minutes). The average hospitalization time for such operations ranged from 9 to 14 days (9.1 ± 1.4). The following complications were noted in the postoperative period in 6 (17.1%) cases: bleeding from mucosal sutures - 3 (8.6%), prolonged pain syndrome - 2 (5.7%), anal incontinence - 1 (2.8%),

Conclusion: Our experience of performing submucosal laser vaporization in the treatment of patients with chronic hemorrhoids has shown that this technique allows to speed up the rehabilitation period of patients by reducing the level of pain and minimizing the number of postoperative complications. It reduces the frequency of complications by 2 times ($p=0.015$); reduces the level of inflammatory, pain syndrome and reduces the duration of hospitalization. However, which of these methods is preferable in each specific case should be decided by both the surgeon and the patient.