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## Peculiarities of treatment of patients with chronic hemorrhoids of the third-fourth degree of development

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### Abstract

The methods of surgical treatment of patients with the third and fourth degree of development of hemorrhoids on the basis of the Surgical Department of the Central City Clinical Hospital (CCCH) of Ivano-Frankovsk for the period of 2013-2018 years were analyzed. During this period, there were operated 568 patients. The study of the degree and duration of postoperative pain, the time of stay in the hospital and the period of rehabilitation were studied. The main used methods are: hemorrhoidectomy according to Milligan-Morgan using electrosurgical equipment. On the basis of the obtained results of the study, it was determined that hemorrhoidectomy with the use of high frequency currents has advantages over hemorrhoidectomy without the use of electrocoagulation tools and is economically grounded, which promotes rapid rehabilitation of patients in the postoperative period.

**Keywords:** Hemorrhoids, hemorrhoidectomy, electrocoagulation.

### Introduction

Hemorrhoidal disease is one of the most common diseases of mankind, known since ancient times. The proportion of hemorrhoids among diseases of the rectum ranges from 32 to 42%. Hemorrhoids occur in 100-120 people per 1.000 adults <sup>[1]</sup>, which is 10-15% of the total amount. Despite the rapid development of minimally invasive technologies in the treatment of hemorrhoids, the operation offered by E Milligan and G Morgan in 1937 remains the most radical intervention in the third and fourth degree of hemorrhoids. Cases of complications after minimally invasive interventions, namely: active rectal bleeding after latex ligation of hemorrhoids occurs in 7.8-11.1% of patients, poor treatment results after Transvaal disarterialization of hemorrhoidal tumors occur in 32.9% during two years <sup>[2]</sup>. As experience gained, hemorrhoidectomy according to Milligan-Morgan experienced a number of changes. In Ukraine and in the post-Soviet space, for a long time during the last decades, this operation has been performed on the basis of the modification of the Proctology Research Institute of the Ministry of Health of the USSR <sup>[3]</sup>. Technical progress and the latest medical equipment have contributed to the wide development of various modifications to this surgical intervention, which has tempted us to study the peculiarities of the use of electrocoagulation equipment during the Milligan-Morgan operation.

### The aim of the study

To study the nature of the pain after various modifications of the Milligan-Morgan operation using high-frequency currents and to determine the degree and depth of lesions of tissues of the perianal area, depending on the used current source.

### Materials and methods

The objects of our study were patients with the third and fourth degree of hemorrhoids development, who were treated in conditions of the Ivano-Frankovsk Central City Clinical Hospital during 2013-2018 years. During 2012-2014, we've performed a preliminary study in which we've been studying the level and duration of patients' postoperative pain in the hospital. The obtained results of this study were used for comparison in a new study, which lasted between 2016-2018. During this period, 326 patients with the third and fourth degree of development of chronic hemorrhoids (Table 1) were treated operatively. According to the age criterion, patients were divided into 5 groups, at the age of 18-29 years-27 (8.2%), 30-39 years-76 (23.8%), 40-49 years-80 (24.6%), 50 -59 years-85 (26.2%), 60-69 years-43 (13.1%), 70 and older-13 (4.1%). The vast majority of patients were people of working age from 30 to 60 years. According to the gender, 32.6% of patients were women and 67.4% were men

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**Table 1:** The structure of surgical interventions performed in CCCH in 2016-2018

Name of the operation	2016	2017	2018	Totally
Hemorrhoidectomy with the use of apparatus ERBEACC450	89	81	98	268
Hemorrhoidectomy with the use of apparatus EK300-M1	22	20	16	58

All patients were divided into two groups.

Group 1 – patients who were performed hemorrhoidectomy using high-frequency currents with an electrosurgical instrument ERBEACC450

Group 2 – patients who were performed hemorrhoidectomy using high-frequency currents with an electrosurgical instrument EC 300M 1.

Taking into account the modern high rate of active life, we were interested in the duration and speed of postoperative rehabilitation of our patients. In order to objectively and subjectively assess the pain syndrome, we used a visual-analogue scale questionnaire and SF-36 questionnaire. The removed pathologic-histological material with hemorrhoidal tissue was analyzed using a morpho-histological study.

The technique of performance the surgical interventions did not recognize the modification of hemorrhoidectomy according to Milligan-Morgan introduced by the Scientific-Research Institute of Proctology of the Ministry of Health of the USSR, but it is different to use additional tools for it. For the performance of hemorrhoidectomy, we've used the ERBEACC450 electrocoagulation apparatus with a 460 W cut-off mode at 400 Ohm, with a frequency of 350 kHz, and a high-frequency EC-300-M1 electrocoagulator with a set of bipolar clamps with an alternating voltage of 66kHz, an amplitude of output voltage of 100-200V and a power of 210-220W. The duration of surgical intervention data using the ERBEACC450 device was 15-35 min., and 7-18 min. with the use of EC-300M1.

### Results and discussion

On the basis of received questionnaires from patients according to the visual-analogue scale, statistically ordered tables of pain levels at different times after surgical intervention in each patient group were constructed and compared with the data obtained in the previous study.

In all patients, of both new and previous studies, after 12 hours, peak pain levels are observed. For a group of patients, who were not used high-frequency currents for surgery, it was 9.0 points according to a 10-point pain assessment system, for the group with the use of the ERBEACC450-5.0, and for the group with the use of the EC-300M1 apparatus – 5.3 points; during the next 48 hours the pain sensations are almost twice decreased to 2.2 and 1.9 points in the above-mentioned groups. The use of high-frequency currents allowed us to shorten the patients' stay in the hospital for 2-3 days, by reducing pain sensations in the postoperative wounds and the rapid transition from injection to oral anesthetics. Observation of patients at the outpatient stage during the 14<sup>th</sup> and 28<sup>th</sup> days showed that the rate of wound epithelization depends on the used source of high frequency energy. It should be noted that complete wound epithelization occurred during the 18<sup>th</sup>-26<sup>th</sup> days in patients who were used the apparatus ERBEACC450 and during the 23<sup>rd</sup>-30<sup>th</sup> days after use of the apparatus EC 300 M1.

### Conclusions

1. Use of the mono- and bipolar current of the electrosurgical equipment during the operation of the Milligan-Morgan has advantages over the classical

methods of its performance.

2. There is no significant difference in the level of pain sensations and the duration of patients' stay in the hospital with the application of the electrocoagulation apparatus used by us, but we prefer the ERBE ACC 450 apparatus, since the regenerative processes in the postoperative wounds are more rapid, which promotes faster recovery of patients.

### References

1. Semionkin EI. Coloproctology (Tutorial). Moscow, PH Medpraktika, 2004, 43.
2. Shudrak AA. Choice of the method of surgical treatment of chronic hemorrhoids. *Khirurgiya Ukrayiny*, 2013; 4:61-68.
3. Fundamentals of coloproctology. Vorobiev GI ed. Moscow, 2006, 329-330.