



OPTIMIZATION OF THE MEDICAL ABORTION THROUGH QUESTIONNAIRES AND THE USE OF A LOW-SENSITIVITY PREGNANCY TEST DURING THE COVID-19 PANDEMIC

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Abstract:

Despite a number of studies conducted in recent years, abortion still remains a hot topic. Today, several types of contraceptive methods are available, but even they cannot completely eliminate the incidence of unwanted pregnancy [1]. According to recent statistics, 72% of women have had an abortion once in their lives, but the impact of this history on the course of pregnancy and its complications was not taken into account when planning future pregnancies [2]. In this article we provided the results of our research that were collected during a medical abortion at home.

Keywords: abortion, complications of abortion, family planning, medical abortion, pregnancy.

INTRODUCTION. Currently, medical abortion is considered as a method of safe abortion and, in turn, this method is a significant reserve in reducing maternal mortality and morbidity. Guidelines published by WHO [1] state that "after appropriate counselling, a woman should have the right to undergo medical or surgical induced abortion, and that health services should provide such services in a manner that is as safe as possible."

In 2011-2012 such major professional organizations as the Royal and American Associations of Obstetricians and Gynecologists have developed and published an updated version of clinical recommendations for the use of medical abortion for termination of unplanned pregnancy and for medical indications in late stages (RCOG, ACOG) [2].

These clinical recommendations further improve the use of medical abortion, mainly covering the relative timing of pregnancy for its termination, as well as the doses and dosage regimens of mifepristone and misoprostol. Research carried out since the publication of the clinical guidelines mentioned above defines current directions for improving the quality of care for women who need to end their pregnancy early.

Abortion is one of the most common procedures for women of reproductive age in Europe, ranging from 6.4/1000 women aged 15–44 years in Switzerland to 19.2/1000 in Sweden. Researchers say the need has likely increased since COVID-19 due to economic uncertainty, increased risk of sexual violence and limited access to contraception. [3]

WHO harnesses the power of digital technologies and health innovation to accelerate global achievement of health and well-being. Digital technologies have been

shown to play a critical role in responding to the challenges posed by COVID-19, such as introducing telehealth solutions to enable self-managed abortion and increasing access to safe abortion in rural and underserved communities.

Various methods are used to determine the effectiveness of medical abortion: gynecological self-assessment, clinical assessment, ultrasound, and human chorionic gonadotropin (HCG) testing in serum or urine. 14 Transvaginal ultrasound is a valuable tool for visualizing the uterus, ovaries, and pelvic floor. Ultrasound results may be difficult to interpret and may lead to unnecessary surgery. Serum gonadotropin levels were more effective than ultrasound scanning after 14 days. 14 Moreover, gonadotropin is a hormone produced by differentiated syncytiotrophoblast cells in early pregnancy and serves as the primary signal to the fetus to maintain pregnancy. 16 Complete abortion is indicated by a decrease in β -hCG levels during the observation period. Additionally, measuring β -hCG is easy and can be done at home. A comparison of the effectiveness of ultrasound with the β -hCG test in diagnosing completed abortion showed that the β -hCG test is as effective as ultrasound imaging in the second week of pregnancy.

COVID-19 has undoubtedly created unique opportunities to expand the range of ways in which health care providers offer safe abortion services. This, in turn, can improve the ability of women and individuals to receive quality, comprehensive abortion care that suits their values, preferences and circumstances – during the pandemic and beyond.



AIM OF THE WORK. Improving access to medical abortion through questionnaires and the use of low-sensitivity pregnancy tests in outpatient settings during the COVID-19 pandemic.

MATERIALS AND METHODS. Prospective work was carried out in a multidisciplinary clinic of the Tashkent Medical Academy. All women were divided into 2 groups according to the method of termination: Group 1 (n=55) - those who applied for an abortion and before the medical abortion, the levels of the hormone HCG in the blood plasma and a sensitivity test to HCG 1000 were used. As a control after a medical abortion in this group, the hCG hormone was determined in the blood plasma and a test with a sensitivity of hCG 1000 was used. Group 2 (n=50) - before and after medical abortion, only a test with a sensitivity of 1000 hCG was used. In accordance with the resolution of the Ministry of Health of the Republic of Uzbekistan from 2008, termination of pregnancy was carried out with mifepristone 200 mg and misoprostol 600 mg. Termination of pregnancy was carried out at the request of the patient within a period not exceeding 63 days of amenorrhea and not earlier than 48 hours from the moment the woman contacted a medical institution or contacted a doctor by telephone during a pandemic after consultation. Clinical research methods included medical history, general and gynecological examination. All patients included in the study were subjected to a thorough interview and examination using clinical, instrumental, laboratory and statistical methods.

The questionnaire "Criteria for assessing the status of medical abortion at home" was conducted in all groups of women. The survey was conducted through information communications: Telegram, WhatsApp, SMS and various instant messengers

RESULTS. Women in all groups are of reproductive age: the average age of women in the 1st group was 28.4 years, and in the 3rd group this figure was 29.8. Based on the data obtained, the average age of menarche was distributed as follows:

- 13.54 years in group 2
- 13.42 years in group 3

Before initiating medical abortion, women in all groups were offered a high-sensitivity hCG pregnancy test at

home or at their first hospital visit. Women in all groups used pregnancy tests with a sensitivity of 25, and all had positive results.

In addition, all women seeking medical abortion underwent a complete blood count, blood clotting time (BCT), and their parameters were analyzed.

Thus, none of the women in all our examined groups had abnormalities in the general blood test and blood clotting time, and there was no iron deficiency anemia. This showed that all women have no contraindications to inpatient and home medical abortion based on hematological indicators.

Women in the groups were divided into three groups depending on the conditions of medical abortion and examination methods during and after termination of pregnancy. The number of visits to the doctor's office also varied

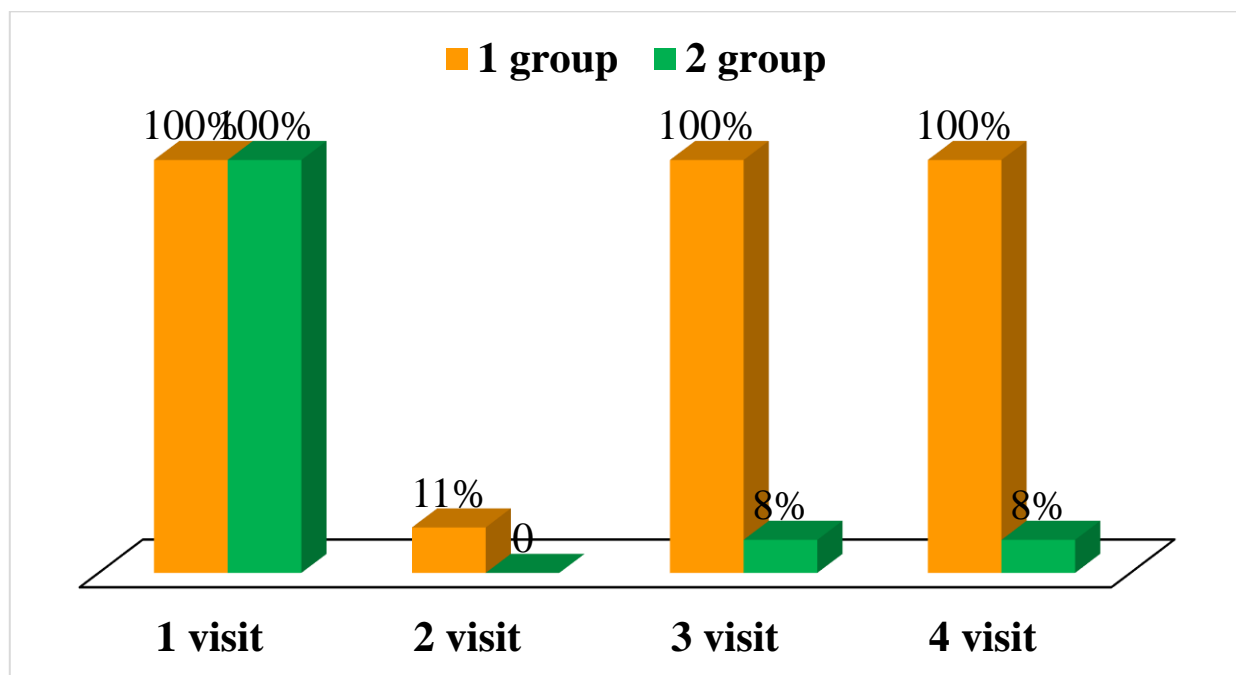
Women in the second group consisted of 55 people, and in this group, during the examination, the amount of hCG in the venous blood was determined before medical abortion in the morning on an empty stomach. The highest level was 67,000, and the lowest level of this hormone was 1080.

In addition, all women of the second group were tested with a sensitivity of 1000 to hCG before medical termination of pregnancy.

During the scientific study, a questionnaire was administered to women of the second and third groups. The first part of the survey was devoted to the use of modern IT technologies, the results of which found that 100% of all women use one or another type of these technologies. All women in the second group reported using the SMS notification service, and 58.1% of them said they were active in the Telegram messenger. In addition, 38.1% of women in this group had access to postal services.

The third group included 100% of users of the SMS notification service. In turn, 56% of Telegram messenger users and 38% of women have personal email.

The survey revealed that there was no significant difference in the use of IT technologies between the groups. In both groups, the use of SMS notifications led the way, while the least used method was email services.



Picture 1. Frequency of visit to hospital

In most cases, both the medical abortion itself and the post-abortion period proceeded without side effects (85%) and complications (92%). In other cases, the

following side effects were identified: nausea (17.2%), vomiting (7.9%), pain requiring the use of analgesics (6.3%), heavy bleeding (3.1%).

Table 1. Side effects and complications, n (%)

		1 group	3 group
1	No side effects	81,6%	86%
2	No complications	90%	94%
3	Intense pain in the lower abdomen	16,7%	14%
4	Heavy bleeding	8,3%	8%
5	Increased body temperature	11,7%	10%
6	Nausea	18,3%	16%
7	Vomiting	15%	12%
8	Diarrhea	16,7%	10%
9	Dizziness	8,3%	4%
10	Incomplete abortion	8,3%	4%
11	Hematometer	10%	6%
12	Metroendometritis	5%	2%
13	Average duration of bleeding (days)	12,4±2,5	11,4±1,8

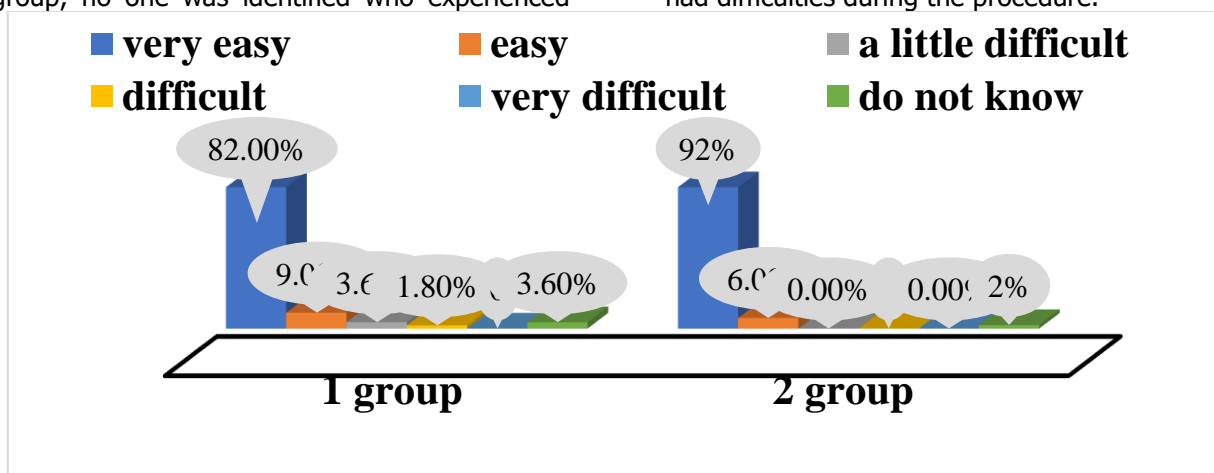
At the second stage of the survey, women were asked about their impressions of the practice of medical abortion. Based on the responses of the subjects in the

group, it was analyzed into 4 categories. According to him, the majority of women in both groups found the practice quite easy - 82% and 92%, respectively. The



number of women who had difficulties during exercise in the second group was 9%, in the third - 6%. In the main group, no one was identified who experienced

difficulties during medical abortion, and in the comparison group, 1.8% of women reported that they had difficulties during the procedure.



In addition, at the next stage of the questionnaire, the nature of pain observed during medical abortion was

analyzed. The results of the analysis are presented in the table.

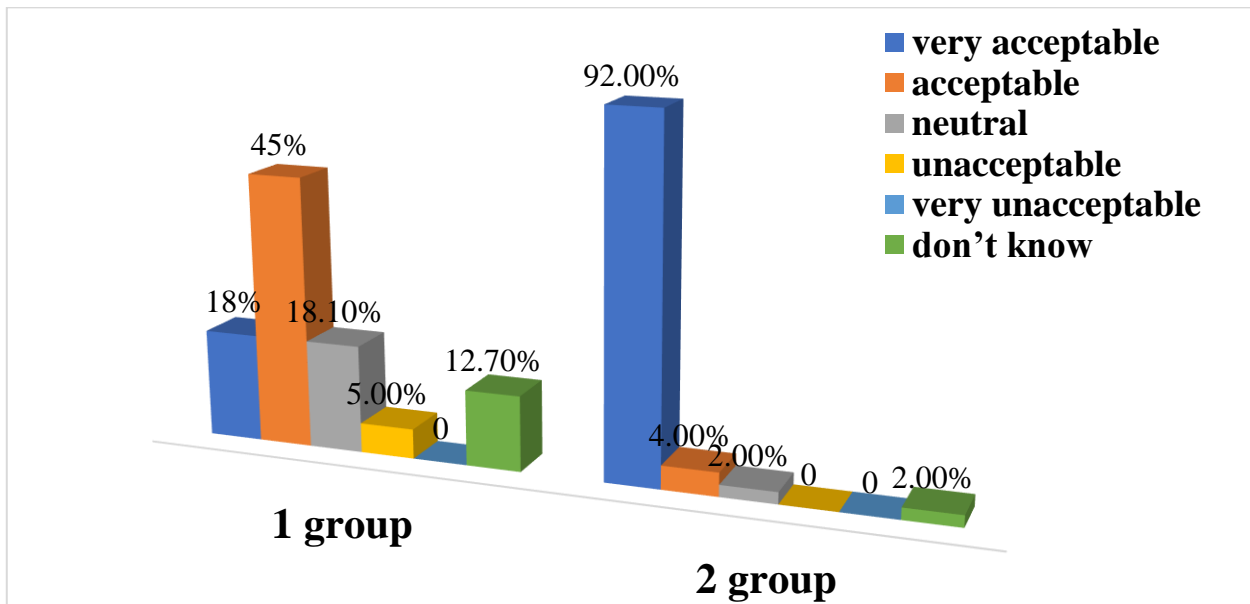
Table 2

Nature of pain during medical abortion (%)

	Characteristics of pain	1 group, (n=55)	2 group, (n=50)
1	Less than expected	51.7%	50.9%
2	More than I expected	18.3%	25.4%
3	As expected	30%	21.8%
4	Don't know	0	0

There was no significant difference in the nature of pain in both groups. Compared to the expected pain, one and a half times more women were observed in the third group than in the second group. More than 50% of women in both groups reported less pain than expected. An analysis of possible complications after medical abortion in women of the second and first groups was carried out. These complications included symptoms such as increased sensitivity of the mammary glands, nausea and vomiting, increased urination, and fatigue. There were no women with these symptoms in both groups.

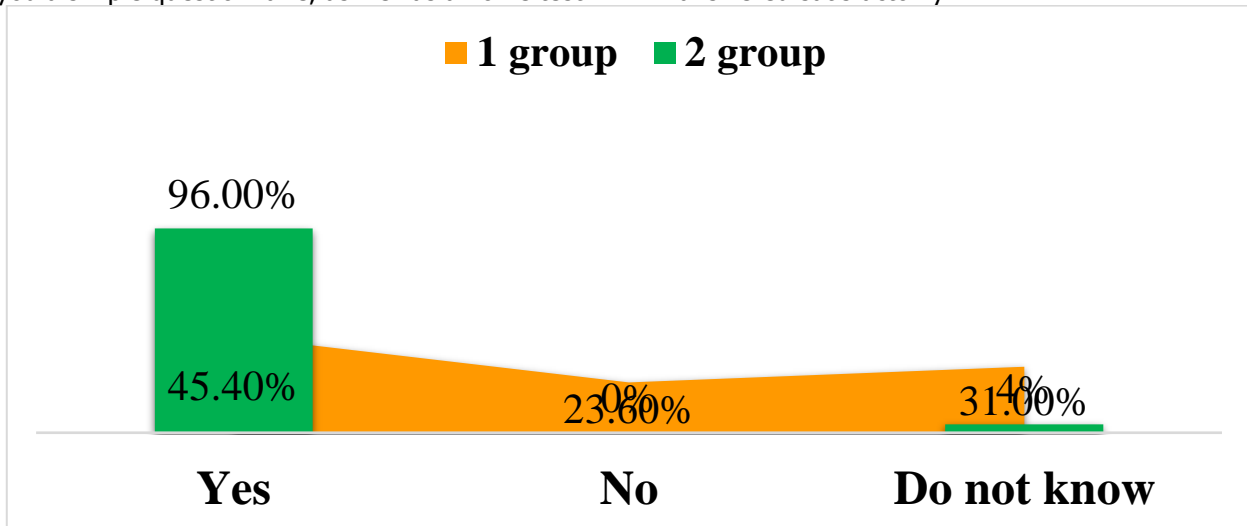
At the next stage of the survey, the ease of visiting a doctor less than twice during a medical abortion was analyzed among the groups. Among women in the first group, 18% (10 women) considered visiting a doctor 2 or more times very acceptable, and in the second group - 92% (46 women). 45% (25 people) and 4% (2 people) from the two groups, respectively, were women who considered the method acceptable. Women who consider this unacceptable are found only in the second group - 5%.



Picture 3. Acceptability of visiting the clinic 2 or more times for medical abortion

At the next stage, women of the second and third groups were asked whether they could cope with a medical abortion themselves at home, if their doctor gave you a simple questionnaire, as well as a home test

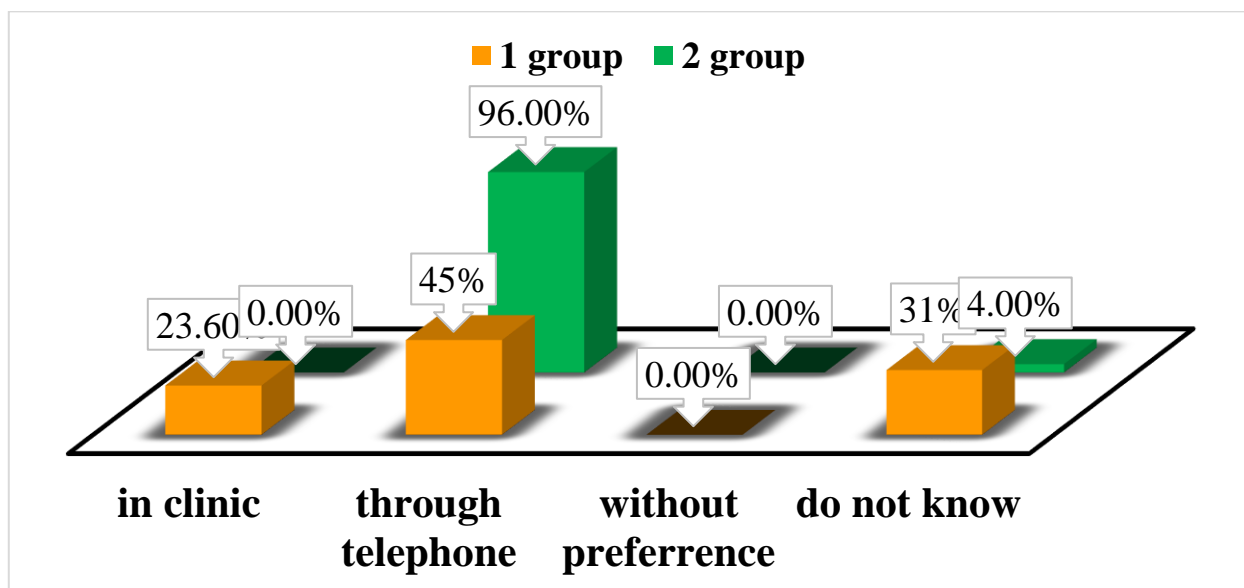
to evaluate the possibilities of carrying out a medical abortion at home. 96% of women in the main group and more than 45% of women in the comparison group answered satisfactorily.



Picture 4. Possibilities for performing medical abortion at home

At the end of the survey, the requirements of the surveyed women regarding how to contact a doctor when undergoing a medical abortion in the future were

analyzed. According to him, more than 95% of women in second group preferred access through IT technologies.



Picture 3. Preferred future observations

Based on the results of the survey, we can conclude that in the group that carried out medical abortion at home using IT technologies, when monitoring tests with a sensitivity of 1000, there is a high need to use this method in the future. More than half of women who had a medical abortion at home expressed a preference for performing the procedure at home in the future.

CONCLUSION. During the COVID-19 pandemic, 94% of the group of women who used medical abortion at home had an abortion without complications. The incidence of side effects in this group was 86%. Based on the results of the survey, we can conclude that in the group that performed medical abortion at home using IT technologies, when monitoring tests with a sensitivity of 1000, there is a high need to use this method in the future (96%). 2. In the 2nd group, where low-sensitivity pregnancy tests were used as a control during medical termination of pregnancy, a negative result was observed in 100% of women in the post-abortion period. Expanding access to at-home medical abortion can offer women a convenient, safe, and effective abortion option, reduce the burden on health care systems, and support social distancing during the COVID-19 pandemic. Medical abortion at home was highly acceptable to women, supporting evidence that women may prefer home care to hospital care for reasons related to control and confidentiality, preferences that may be more pronounced due to concerns about spread or infection of the new coronavirus disease. Outpatient medical abortion can be an important strategy to offer women a convenient, safe and effective abortion option, reduce the burden on health care systems and support social distancing

policies during the COVID-19 pandemic and beyond, especially in remote areas.

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