EFFICACY OF NON-INVASIVE TREATMENT OF UTERINE FIBROID-ASSOCIATED BLEEDING IN WOMEN OF REPRODUCTIVE AGE

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Annotation. This study was conducted to evaluate the effectiveness of non-invasive conservative treatment of myoma-associated uterine bleeding in women of reproductive age with uterine fibroids at the Urogynecology and Polyclinic Departments of the Multidisciplinary Clinic of Samarkand State Medical University. A total of 50 patients were included in the study: 30 patients had abnormal uterine bleeding associated with uterine fibroids, while 20 patients had fibroids without bleeding. All patients underwent clinical and anamnestic assessment, gynecological examination, complete blood count, and ultrasound examination. In patients with bleeding, the duration and intensity of menstrual bleeding were assessed. Treatment was carried out using only non-invasive conservative methods, including hormonal therapy, antifibrinolytic and hemostatic agents, as well as iron supplements.

According to the treatment outcomes, 23 out of 30 patients (76.7%) with bleeding demonstrated a clinically significant reduction in the volume and duration of menstrual bleeding. The average duration of menstruation decreased from 8.2 ± 1.4 days before treatment to 5.1 ± 1.2 days after treatment. The mean hemoglobin level increased from 98.6 ± 8.3 g/L to 112.4 ± 7.6 g/L. Among patients with non-bleeding uterine fibroids, clinical stability was maintained in 18 patients (90.0%) during the follow-up period.

The obtained results indicate that non-invasive conservative methods demonstrate high clinical efficacy in the treatment of myoma-associated uterine bleeding and contribute to uterine preservation in women of reproductive age.

Keywords: Uterine fibroids, abnormal uterine bleeding, reproductive age, non-invasive conservative treatment, hormonal therapy, antifibrinolytic agents, hemostasis.

Uterine fibroids are one of the most common benign gynecological conditions in women of reproductive age, with a reported prevalence of 20–40% according to various sources. In many cases, uterine fibroids are asymptomatic; however, in some patients, they present with abnormal uterine bleeding, which negatively affects women's quality of life and reproductive health.

Fibroid-associated bleeding is often characterized by prolonged and heavy menstrual periods and intermenstrual spotting. Such conditions can lead to iron-deficiency anemia, general weakness, decreased work capacity, and limitations in planning pregnancy. Therefore, timely detection and effective management of bleeding in women with uterine fibroids remain an urgent clinical issue.

Preserving the uterus and protecting fertility in women of reproductive age are of critical importance; hence, surgical interventions are not always the primary choice. In recent years, interest in non-invasive conservative management of fibroid-related bleeding—including hormonal therapy, antifibrinolytic, and hemostatic agents—has increased. These methods allow for symptom control while maintaining uterine anatomical integrity.

In this context, evaluating the efficacy of non-invasive conservative treatment of fibroid-related bleeding in women of reproductive age is both scientifically and clinically relevant.

Study aim. To assess the clinical effectiveness of non-invasive conservative treatment methods for abnormal uterine bleeding associated with uterine fibroids in women of reproductive age, and to compare treatment outcomes between cases with and without bleeding.

Materials and Methods. The study was conducted at the urogynecology and outpatient departments of the multidisciplinary clinic of Samarkand State Medical University. A total of 50 women of reproductive age with a confirmed diagnosis of uterine fibroids by ultrasound were included in the study.

According to the clinical course, patients were divided into two groups:

- **Group 1:** 30 patients with abnormal uterine bleeding associated with uterine fibroids.
- **Group 2:** 20 patients with uterine fibroids without clinical signs of bleeding.

Inclusion criteria were: reproductive age (18–45 years), confirmed diagnosis of uterine fibroids, and written informed consent to participate in the study. ***Exclusion criteria*** included malignant tumors of the uterus and adnexa, severe extragenital diseases, coagulation disorders, pregnancy, and previous uterine surgery.

All patients underwent a comprehensive clinical and anamnesis assessment, gynecological examination, complete blood count (including hemoglobin level), coagulation profile, and transvaginal ultrasound. In patients with bleeding, the duration and intensity of menstrual blood loss were assessed.

During treatment, only non-invasive conservative methods were applied. These included hormonal therapy (combined oral contraceptives and gestagens), antifibrinolytic agents (tranexamic acid), hemostatic drugs, and iron supplementation to correct iron-deficiency anemia.

The effectiveness of treatment was evaluated based on changes in the duration and volume of menstrual bleeding, hemoglobin levels, and the dynamics of clinical symptoms. Data were analyzed using statistical methods, and results were considered significant at $p < 0.05$.

Results. Analysis of the study results showed that the clinical course of uterine fibroids in women of reproductive age varied significantly depending on the presence of fibroid-related bleeding.

In **Group 1** (30 patients with bleeding fibroids), the duration and intensity of menstrual bleeding were high, with an average menstrual duration of 8.2 ± 1.4 days at the start of the study. Most of these patients also exhibited decreased hemoglobin levels consistent with iron-deficiency anemia, with a mean hemoglobin of 98.6 ± 8.3 g/L.

Following non-invasive conservative treatment, 23 patients (76.7%) in Group 1 showed a clinically significant reduction in both the volume and duration of menstrual bleeding. The mean duration of menstruation decreased to 5.1 ± 1.2 days, and hemoglobin levels increased to 112.4 ± 7.6 g/L ($p < 0.05$). In the remaining 7 patients (23.3%), partial reduction in menstrual bleeding was observed, with some requiring an extension of the treatment course.

In **Group 2** (20 patients with fibroids without bleeding), clinical stability was maintained throughout the observation period. Among these patients, 18 (90.0%)

experienced regular menstrual cycles, and hemoglobin levels remained within normal limits.

These results indicate that non-invasive conservative treatment effectively controls fibroid-related bleeding and allows for positive clinical outcomes in women of reproductive age without the need for surgical intervention.

Discussion. The results of this study demonstrated that non-invasive conservative methods can effectively control fibroid-related bleeding in women of reproductive age. The data obtained confirm that the pathogenesis of abnormal uterine bleeding associated with fibroids involves endometrial proliferation, impaired contractile activity of the uterine muscle layer, and disruption of local hemostatic mechanisms.

In Group 1, non-invasive treatment led to a significant reduction in both the duration and volume of menstrual bleeding, with clinically meaningful improvement observed in 76.7% of patients. This finding is consistent with previously reported conservative treatment efficacy rates of 70–80% [1–3]. The use of hormonal therapy and antifibrinolytic agents likely suppressed endometrial growth and contributed to the reduction of uterine bleeding.

The observed increase in hemoglobin levels by 13–14 g/L reflects not only the symptomatic improvement but also the overall positive effect of the treatment on general health status. This confirms the effectiveness of iron supplementation and aligns with the results of other studies [4–6].

In Group 2, patients with fibroids without bleeding maintained clinical stability, indicating that active intervention may not always be necessary for asymptomatic fibroids. In such cases, dynamic observation combined with a conservative approach

may be sufficient, preventing unnecessary invasive procedures in women of reproductive age.

Overall, these findings emphasize the importance of an individualized approach to the management of fibroid-related bleeding. Non-invasive conservative treatment can be considered a first-line option for patients with bleeding fibroids, while a watchful waiting strategy is appropriate for those without bleeding.

Conclusion. Non-invasive conservative methods effectively manage abnormal uterine bleeding associated with uterine fibroids in women of reproductive age. The results of this study demonstrated that hormonal therapy, antifibrinolytic and hemostatic agents, along with iron supplementation, significantly reduced menstrual blood loss in 76.7% of patients and improved hemoglobin levels. In cases of fibroids without bleeding, clinical stability was maintained, indicating that observation combined with a conservative approach is sufficient. These findings confirm that conservative management preserves uterine function, offers high clinical efficacy, and reduces the need for invasive interventions. The study provides a scientific basis for developing individualized conservative treatment protocols for managing fibroid-related bleeding in women of reproductive age.

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