

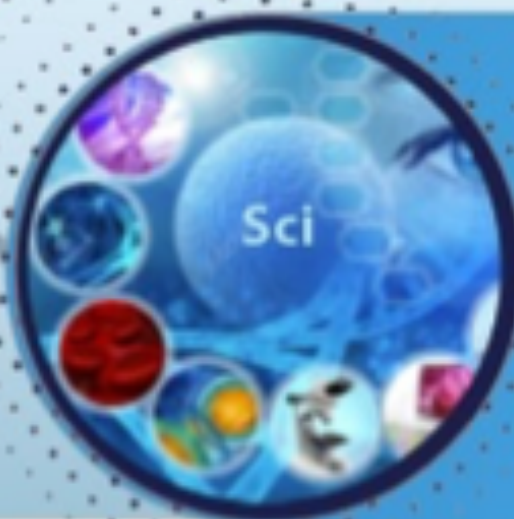


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Differentiated Approach to the Management of Women with Infertility Associated with the Absence of Ovulation

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ABSTRACT

Background. Infertility is one of the most common problems in the modern world. Lack of ovulation can cause infertility in many women. The aim of the study is to evaluation of the effectiveness and safety of a differentiated approach to the management of women with infertility associated with the absence of ovulation.

Materials. The study involved 100 women who were operated on for an ovarian follicular cyst. After surgery, the patients were divided into two groups: 40 women received the drug Midiana® as adjuvant therapy, and 40 women received Novinet®. The control group included 20 women.

Results. The results of the study showed that a differentiated approach to the management of women with infertility associated with the absence of ovulation can be effective and safe. Patients receiving Mediana® and Novinet® had significantly higher chances of successful conception than women from the control group. At the same time, the Midiana® drug was more effective in restoring ovulation than Novinet®.

Conclusion. The results of the study confirm the effectiveness of a differentiated approach to the treatment of infertility associated with the absence of ovulation. Adjuvant hormone therapy in the examined patients led to the restoration of ovulation in 86% and 85%, respectively, in the groups, and the onset of reproductive function in 84% and 82%, respectively, of the groups.

Keywords: Infertility, ovulation, individual approach, hormone therapy, Midiana®, Novinet®

INTRODUCTION

Infertility is one of the most common problems of modern gynecology, which affects many women of reproductive age [1-4]. One of the most common causes of infertility in women is the lack of ovulation, which can occur for various reasons, such as hormonal

disorders, polycystic ovary syndrome, age-related changes and others [5-11].

Effective treatment of infertility associated with the absence of ovulation requires an individual approach to each patient, taking into account the peculiarities of her health and age [12-16]. A differentiated approach to the

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management of women with infertility associated with the absence of ovulation should be based on a comprehensive diagnosis and selection of the optimal treatment method for each specific patient [17-21].

There are several methods of treating the absence of ovulation, such as hormone therapy and laparoscopic surgery [22-30]. However, these methods are not always effective, and may cause undesirable side effects.

The goal of the study is to evaluate the effectiveness and safety of a differentiated approach to the management of women with infertility associated with the absence of ovulation.

MATERIALS AND METHODS

The study included 100 women aged 18 to 40 years, operated on for ovarian follicular cysts. After the operation, the women have prescribed two different drugs for adjuvant hormone therapy: 40 patients have prescribed the drug Midiana®, and 40 - Novinet®. The control group consisted of 20 women with similar pathology who refused hormonal adjuvant therapy.

The studies were conducted in the obstetric complex No. 9. Tashkent from 2021 to 2023. The average age of the patients was 24.6 ± 2.8 years.

All patients underwent surgery with laparoscopic access. Laparoscopy was performed according to a generally accepted technique using a set of equipment and tools from Karl Storz. The laparoscopic surgery performed in women involved salpingo-oophorolysis and cystectomy of follicular ovarian cysts using a commonly accepted method. The surgical material was verified histologically.

In cystectomy, an incision was made at the lower edge of the follicular cyst capsule, and the layer between the cyst wall and the ovarian cortical layer was penetrated mainly by mechanical detachment, thereby separating the follicular cyst wall from the healthy ovarian tissue. The cyst was then directly enucleated, partially fixed with forceps, and extracted with pulling movements.

In cases where the capsule of the cyst ruptured and its contents entered the abdominal cavity, thorough washing of the pelvic cavity with an antiseptic solution was carried out. After resection and enucleation, mandatory additional processing of the follicular cyst bed was performed with a bipolar coagulator, not only for reliable hemostasis but also for coagulation of any remaining cystic formations. At the final stage, thorough washing of the abdominal cavity with an antiseptic solution and revision of the organs in the abdominal cavity was performed again.

All patients of the 1st group in the postoperative period were prescribed the combined oral contraceptive Midiana®. Midiana® was started on the first day of the menstrual cycle (on the first day of menstrual bleeding). Midiana® was taken 1 tablet per day continuously for 21 days for 2-3 months.

All patients of the 2nd group in the postoperative period were prescribed the combined oral contraceptive drug Janine®. Taking the drug Janine® was started on the first day of the menstrual cycle (on the first day of menstrual bleeding). Janine® was taken 1 tablet a day continuously for 21 days for 2-3 months.

All patients underwent clinical and laboratory, hormonal, and ultrasound methods of examination. The obtained data were processed using the statistical software package "Statistika 6.0".

RESULTS

To study the effectiveness of the differentiated approach, a study was conducted on 100 women operated on for ovarian follicular cyst. All women were included in the study after surgery and received treatment: 40 of them received the drug Midiana®, 40 women – Novinet®. A control group of 30 women was also included in the study.

The results of the study showed that a differentiated approach to the treatment of infertility associated with the absence of ovulation gives good results. Women who received the drug Midiana® or Novinet® had high rates of ovulatory function recovery, which led to an increased chance of pregnancy.

Adjuvant hormone therapy in the examined patients led to the restoration of ovulation in 86% and 85%, respectively, in the groups, and the onset of reproductive function in 84% and 82%, respectively, of the groups. In the control group, these indicators were very low and amounted to only 4% and 2% (see figure 1).

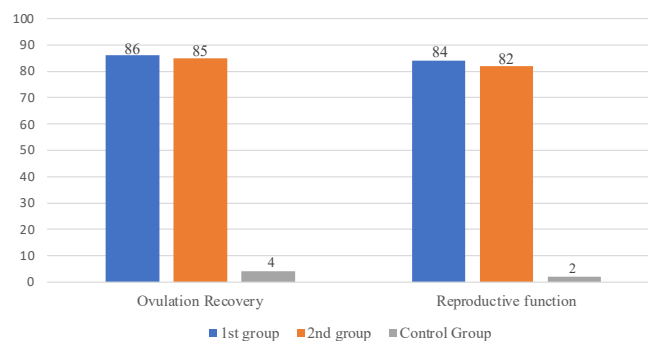


Figure 1. The frequency of restoration of ovulation and reproductive function in the examined, %

Dynamic monitoring was carried out in patients from 3 to 6 months after endochirurgical treatment due to anovulatory infertility, even up to 1 year. In the diagnosis of the disease in 40 infertile women associated with an anovulatory condition, an analysis of the hormonal status was carried out.

In the diagnosis of the disease in 40 infertile women associated with an anovulatory condition, an analysis of the hormonal status was carried out. In all patients of groups I and II, before hormonal adjuvant therapy, when studying the state of hormones, the following hormonal changes were detected.

Before treatment with Midiana and Janine drugs, LG hormone levels were $8,2 \pm 0,12$ and $10,0 \pm 0,46$ me/l in groups and FSG hormone in groups of $10,1 \pm 0,1$ and $9,9 \pm 0,19$ me/l and, respectively ($p < 0,001$) E2 levels in groups of $120,0 \pm 12,7$ pg/ml and $118,8 \pm 11,87$ pg/ml, ($p < 0,001$) established.

After adjuvant hormone therapy was performed using the drugs Midian and Janine, both groups had a decrease in the level of LH which amounted to $7,4 \pm 0,11$ iu/l and $7,3 \pm 0,12$ iu/l, respectively, in the groups ($p < 0,001$), the level of FSH increased to $11,4 \pm 0,13$ iu/ and $8,6 \pm 0,18$ also, the reduction of the E2 content into $88,4 \pm 0,01$ pg/ml and $82,2 \pm 0,02$ pg/ml, respectively, was cancelled in the groups (see Table 1) ($p < 0,001$).

Table 1. Hormonal indicators before and after hormonal adjuvant therapy in patients included in the study, $M \pm m$

Hormones	1st group, n=40		2nd group, n=30		Comparison group (n=20)
	Before	After	Before	After	
FSG, Me/l	$10,1 \pm 0,1$	$11,4 \pm 0,13^{*\wedge}$ ^^	$9,9 \pm 0,19$	$8,6 \pm 0,18^*$ *^^^	$9,8 \pm 0,21$
LG, Me/l	$8,2 \pm 0,12$	$7,4 \pm 0,11^{*\wedge}$ ^^^	$10,0 \pm 0,46$	$7,3 \pm 0,12^*$ ^^^	$10,5 \pm 0,28$
E2 (pg/ml)	$120,0 \pm 12,7$	$88,4 \pm 0,01^{**\wedge}$ *^	$118,8 \pm 11,87$	$82,2 \pm 0,02^{***\wedge}$ ***^	$116,1 \pm 14,7$
Progesterone (ng/ml)	$1,3 \pm 0,07$	$2,4 \pm 0,09^{***\wedge}$ ^^^	$1,4 \pm 0,09$	$2,1 \pm 0,09^{\wedge}$ ^^	$0,6 \pm 0,17$

Note: * – differences are significant compared to pre-treatment indicators (* – $p < 0,05$, *** – $p < 0,001$)

^ – differences in comparison group indicators are significant (^ – $p < 0,05$, ^^ – $p < 0,01$, ^^ ^ – $p < 0,001$)

It was also found that a differentiated approach to infertility treatment allows for considering the individual characteristics of each patient and selecting the optimal treatment method. For example, some women may re-

ceive medications to restore ovulation, while others may require surgery.

DISCUSSION

Infertility is a common problem among women and may be associated with various factors [1-7]. One of the most common is the absence of ovulation [8-11]. For the treatment of this type of infertility, a differentiated approach is used, which includes an individual approach to each patient, considering his characteristics.

These results indicate that a differentiated approach to the management of women with infertility associated with the absence of ovulation may be more effective than traditional methods of treatment. However, longer studies are needed to confirm these results and to determine the possible side effects of long-term therapy with Midiana® and Novinet®.

Discussing the results of the study, it should be noted that the differentiated approach is an effective method of treating infertility associated with the absence of ovulation. However, for optimal results, it is necessary to consider the individual characteristics of each patient and select the most appropriate treatment method.

In conclusion, a differentiated approach is an effective method of treating infertility associated with the absence of ovulation. The study showed that an individual approach to each patient allows you to achieve better results in restoring ovulation and increasing the chances of pregnancy. When choosing a treatment method, it is necessary to consider factors such as age, duration of infertility, the presence of concomitant diseases and other individual characteristics.

Also, it is worth noting that a differentiated approach can be applied not only to the treatment of infertility associated with the absence of ovulation but also to other forms of infertility. An individual approach to each patient allows you to achieve the best results and increase the chances of pregnancy by 2.2 times. Adjuvant hormone therapy in the examined patients led to the restoration of ovulation in 86% and 85%, respectively, in the groups, and the onset of reproductive function in 84% and 82%, respectively, of the groups.

CONCLUSION

The results of the study confirm the effectiveness of a differentiated approach to the treatment of infertility associated with the absence of ovulation. Adjuvant hormone therapy in the examined patients led to the restoration of ovulation in 86% and 85%, respectively, in the groups, and the onset of reproductive function in 84% and 82%, respectively, of the groups. A

differentiated approach allows achieving the best results and increasing the chances of pregnancy by 2.2 times, which is an important factor for patients with lack of ovulation.

Ethics approval and consent to participate - All patients gave written informed consent to participate in the study.

Consent for publication - The study is valid, and recognition by the organization is not required. The author agrees to open publication

Availability of data and material - Available

Competing interests - No

Financing – No financial support has been provided for this work

Conflict of interests - The authors declare that there is no conflict of interest.

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**ANOVULYASIYA BILAN BOG'LIQ BEPUSHT
AYOLLARNI BOSHQARISHDA DIFFERENSIAL
YONDASHUV**

Gafurova E.O.

Toshkent tibbiyot akademiyasi

ABSTRAKT

Dolzarbligi. Bepushtlik bugungi kunda dunyodagi eng keng tarqalgan muammolardan biridir. Anovulyasiya ko'plab ayollarda bepushtlikka olib kelishi mumkin. Tadqiqotning maqsadi—anovulyasiya bilan bog'liq bepusht ayollarni boshqarishda tabaqalashtirilgan yondashuvning samaradorligi va xavfsizligini baholashdir.

Materiallar. Tadqiqotda tuxumdon follikulyar kistasi sababli operatsiya qilingan 100 nafar ayollar ishtirok etdi. Operatsiyadan so'ng bemorlar ikki guruhga bo'lindi: 40 nafar ayol adyuvant terapiya sifatida Midiana® preparatini, 40 nafar ayol esa Novinet® preparatini oldi. Bundan tashqari, tadqiqotga nazorat guruhi sifatida 20 ayol kiritilgan.

Natijalar. Tadqiqot natijalari shuni ko'rsatdiki, anovulyasiya bilan bog'liq bepusht ayollarni boshqarishga tabaqalashtirilgan yondashuv samarali va xavfsiz bo'lishi mumkin. Midiana® va Novinet® bilan davolanagan bemorlar nazorat guruhidagi ayollarga nisbatan muvaffaqiyatli homilador bo'lish ehtimoli ancha yuqori edi. Shu bilan birga, Midiana® preparati Novinet® ga qaraganda ovulyasiyani tiklashda samaraliroq edi.

Xulosa. Tadqiqot natijalari anovulyasiya bilan bog'liq bepushtlikni davolashda differentsial yondashuvning samaradorligini qo'llab-quvvatlaydi. Tadqiqotga kiritilgan ayollarda adyuvant gormon terapiyaini o'tkazish guruhlarida mos ravishda 86% va 85% ovulyasiyani tiklashga va guruhlarida mos ravishda 84% va 82% reproduktiv funksiyaning tiklanishiga olib keldi.

Kalit so'zlar: bepushtlik, ovulyasiya, individual yondashuv, gormon terapiya, Midiana®, Novinet®

**ДИФФЕРЕНЦИРОВАННЫЙ ПОДХОД К
ВЕДЕНИЮ ЖЕНЩИН С БЕСПЛОДИЕМ,
СВЯЗАННЫМ С ОТСУТСТВИЕМ ОВУЛЯЦИИ**

Гафурова Э.О.

АБСТРАКТ

Актуальность. Бесплодие является одной из наиболее распространенных проблем в современном мире. Отсутствие овуляции может стать причиной бесплодия у многих женщин. Цель исследования—оценить эффективность и безопасность дифференцированного подхода к ведению женщин с бесплодием, связанным с отсутствием овуляции.

Материалы. В исследовании приняли участие 100 женщин, которые были оперированы по поводу фолликулярной кисты яичника. После операции, пациентки были разделены на две группы: 40 женщин в качестве адъювантной терапии получали препарат Мидиана®, а 40 женщин получали Новинет®. Кроме того, в исследование были включены 20 женщин в качестве группы контроля.

Результаты. Результаты исследования показали, что дифференцированный подход к ведению женщин с бесплодием, связанным с отсутствием овуляции, может быть эффективным и безопасным. Пациентки, получавшие Мидиана® и Новинет®, имели значительно более высокие шансы на успешное зачатие, чем женщины из группы контроля. При этом, препарат Мидиана® был более эффективным в восстановлении овуляции, чем Новинет®.

Заключение. Результаты исследования подтверждают эффективность дифференцированного подхода к лечению бесплодия, связанного с отсутствием овуляции. Проведение адъювантной гормональной терапии у обследованных привело к восстановлению овуляции в 86% и 85% соответственно в группах, и наступлению репродуктивной функции в 84% и 82% соответственно группам.

Ключевые слова: бесплодие, овуляция, индивидуальный подход, гормональная терапия, Мидиана®, Новинет®