ANALYSIS OF THE RESULTS OF THE USE OF ASSISTED REPRODUCTIVE TECHNOLOGIES IN POLYCYSTIC OVARIAN SYNDROME

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Annotation: The authors conducted a study of 151 patients with PCOS who have complications in the form of primary or secondary infertility, verified on the basis of the results of clinical, laboratory and instrumental examination methods. The study was conducted at the Doctor D multidisciplinary clinic in the period from 2017-2022.The results of the study showedwhatduring the study, the pregnancy rate (PRF) in patients diagnosed with PCOS using modern ART averaged 47.68%.

Keywords: polycystic ovary syndrome, reproductive age, metabolic disorders, assisted reproductive technologies

Relevance: PCOS is one of the most common causes of female infertility [1,5]. This is a condition in which a woman's ovaries and, in some cases, the adrenal glands produce more androgens (a type of hormone) than normal [2,7]. High levels of these hormones interfere with the development of ovarian follicles and the release of eggs during ovulation [3,4]. As a result, fluid-filled sacs or cysts may develop in the ovaries [4,9]. Researchers estimate that between 5% and 10% of women in the United States have PCOS [5,12]. The exact cause of PCOS is unknown, but current research indicates that a combination of genetic and environmental factors leads to the disease [6,8]. PCOS can affect a person's fertility in different ways [7,9].

It is generally accepted that a couple is infertile if they try but fail to conceive within one year. When a woman is over 35, the amount of time she tries to conceive is reduced to six months for a diagnosis of infertility [8,10]. In women older than 40 years, an immediate examination is required [9,10]. Infertility does not include miscarriage or the inability to carry a child to birth [10].

Among the causes of infertility, polycystic ovary syndrome (PCOS) occupies a leading position, and, in this regard, the study of this pathology, the improvement of existing ones and the development of individual, the most optimal approaches in the management of patients with PCOS and especially the problem with the onset of biochemical pregnancy remains relevant and necessary [11]. Among the most common causes leading to impaired fertility in women is polycystic ovary syndrome (PCOS), in which the incidence of anovulatory infertility ranges from 55 to 91% of cases [12]. Meanwhile, timely diagnosis and treatment of the disease, carried out in modern conditions, have increased the number of pregnancy and childbirth among women with PCOS. However,

Purpose of the study: evaluation of the effectiveness of embryo implantation in assisted reproductive technology programs in women with polycystic ovary syndrome

Material and research methods: a study was conducted with the participation of 151 patients diagnosed with PCOS who have complications in the form of primary or secondary infertility, verified on the basis of the results of clinical, laboratory and instrumental examination

methods. The study was conducted at the Doctor D multidisciplinary clinic in the period from 2017-2022.

Results and discussions: To improve efficiency and conduct a comparative analysis, patients in both groups (n=151) were recommended: weight loss with cardio 100 min/day on a treadmill or walking 20,000 steps, exclusion of rapidly digestible carbohydrates from the diet, and taking medications in in the form of biguanides, with NLF micronized progesterone in the 2nd phase of the cycle against the background of ursodeoxycholic acid (metformin 500 mg, fetalston 200 mg and ursosan forte 500 mg) for 3-4 months. Due to lifestyle changes and regular exercise in patients, the menstrual cycle became regular, for 2 months a decrease in body weight by 7 kg was registered, the condition of the skin, hair and quality of life improved.

At the 2nd visit after 3 months, the presence of a dominant follicle and "corpus luteum" was not visualized in patients in the middle of the cycle, which indicated an anovulatory cycle, and therefore everyone was recommended to choose a certain method of modern ART. After that, it is recommended to continue the cardio load + desensitizers + a low-calorie diet, taking progesterone in phase 2.

At the 3rd visit after - 3 months, with regular exercise and diet, the patients most often complained of weakness, dizziness and nausea, which was associated with the use of Glucophage. Pelvic ultrasound in some patients visualized progressing pregnancy. All pregnant patients were given recommendations for prolonging pregnancy with the abolition of glucophage and, in order to maintain pregnancy, continue micronized progesterone (fetalston 200 mg) vaginally.

All data of the study and the results obtained on the basis of ongoing medical therapy, recommendations and the use of modern ART methods are shown in Table 1.

Table 1

The frequency of pregnancy with the use of modern reproductive technologies

No.	Methods ART	Primary			Secondary		
		General	CHNB		General	CHNB	
			Abs.	%		Abs.	%
one	ECO	49	31	63.2	19	eleven	57.5
2	Ovarian drilling	33	13	39.4	5	one	twenty
3	IUI	eight	one	12.5	6	one	16.67
4	Ovulation induction	7	one	14.2	5	one	twenty
5	IUI + Ovulation Induction	ten	2	twenty	9	2	22.23
Total		107	48		44	24	

Based on the data in Table 1, it was found that the most commonly used ART method is IVF, which was performed in a total of 68 patients. Most likely this is due to the availability and higher efficiency observed in the world.

table 2

Comparative assessment of pregnancy in vitro fertilization in the study groups (%) (n=68)

	Primary infertility	Secondary infertility

	(n=49)	(n=19)
Pregnancy rate	62.1	57.5
Live birth rate	48	47
The frequency of spontaneous miscarriages	16	ten
The frequency of non-developing pregnancy	eighteen	12
Multiple pregnancy rate	22	twenty

As a result of medical therapy, the pregnancy rate using IVF technology significantly increased from 29.1% to 62.1% for primary infertility and 57.5% for secondary infertility, and the live birth rate for primary infertility was 48% and 47% for secondary infertility. The number of multiple pregnancies did not differ between the study groups. In group I, the number of multiple pregnancies was 22%, and in group II - 20.

Table 3

Comparative assessment of pregnancy with ovarian drilling (%)

Ovarian drilling	Primary infertility (n=33)	Secondary infertility (n=5)
Pregnancy rate	37	twenty
Live birth rate	65	65
The frequency of spontaneous miscarriages	eight	5
The frequency of non-developing pregnancy	ten	eight
Multiple pregnancy rate	2	-

According to Table 3, when using the technology of ovarian drilling after the application of medical therapy, the NRP increased by 2.2 times in primary infertility, and the frequency of spontaneous miscarriages was 8% in primary infertility and 5% in secondary infertility. The frequency of spontaneous miscarriages differed between the studied groups, it was 8 in group I, and 5 in group II.

Table 4

Comparative assessment of pregnancy during ovulation induction (%)

(%) Ovulation induction	Primary infertility (n=7)	Secondary infertility (n=5)
Pregnancy rate	17	12
Live birth rate	fourteen	ten
The frequency of spontaneous miscarriages	3	-
The frequency of non-developing pregnancy	2	2
Multiple pregnancy rate	one	2

Table 4 indicates that in the study, the success rate increased by 2.9% and the miscarriage rate was 1% when using CNB ovulation induction technology. The frequency of spontaneous miscarriages in group I was 3. The number of multiple pregnancies did not differ significantly

between the studied groups. In group I, the number of multiple pregnancies was 1, and in group II - 2.

In this way, the study showed that to increase the effectiveness of the ART programs used, the patients of both groups were recommended to: reduce weight through physical exercise, avoid fast-digesting carbohydrates, and take medicines in the form of biguanides. And after all these recommendations, the pregnancy rate in patients diagnosed with PCOS using modern ART programs averaged 47.68%, the most effective and commonly used method is IVF, in which the average efficiency was 61.8%.

References:

1. Ихтиярова Г. А., Курбанова З. Ш., Розикова Д. К. Причины и методы диагностики эндокринного бесплодия и роль витамина д в его коррекции //апрель-июнь. – 2020. – С. 34.
2. Курбанова З. Ш. MODERN DIAGNOSTICS AND PREVENTION METHODS WOMEN WITH DIFFERENT CLINICAL FORMS OF POLICYSTIC OVARIAN SYNDROME //Новый день в медицине. – 2020. – №. 2. – С. 426-429.
3. Sh, Kurbanova Z., D. K. Rozikova, and G. A. Ikhtiyarova. "Anovulatory infertility and polycystic ovary syndrome." New day in medicine 2 (2020): 30.
4. Ихтиярова Г.А., Аслонова М.Ж., Курбанова З.Ш., Калиматова Д.М. Перспективы диагностики эндометриоза с учетом роли генетических факторов в патогенезе заболевания. РМЖ. Мать и дитя. 2021;1:12-16. DOI: 10.32364/2618-8430-2021-4-1-12-16.
5. Ikhtiyarova, G. A., Karimova, G. K., & Navruzova, N. O. (2019). KhairullaevCh. K. Ultrasound diagnostics of diabetic fetopathy in pregnant women with metabolic syndrome on the background of diabetes mellitus. Medicine and sports2019, (3-4), 56-58.
6. Ikhtiyarova, G. A., Navruzova, N. O., & Karimova, G. K. (2019). Modern diagnostic methods for early detection of cervical diseases. Doctor akhborotnomasi, (4), 78-80.
7. Navruzova, N., Ikhtiyarova, G., & Navruzova, O. Retrospective analysis of gynecological and somatic anamnesis of cervical background and precancerous diseases. SCIENTIFIC PROGRESS» Scientific Journal ISSN, 2181-1601.
8. Akhmedov A. T. et al. Congenital heart defects in children and comorbidity // E-Conference Globe. –2021. –С. 102-102.
9. Sh, Navruzova, and A.T. Akhmedov. "Autoimplantation Of Thymus In Surgical Correction Of Congenital Heart Defects." Central Asian Journal Of Medical And Natural Sciences 2.3 (2021): 88-98.
10. Джалилова, З. О., Хасанов, К. А., & Султонов, А. А. (2021). Роль научного управления в процессе обучения высококвалифицированных врачей в новом Узбекистане. Молодой ученый, (26), 377-379.
11. Dzhalilova, Z. O. (2021). The Latin language's international status. Молодой ученый, (41), 32-34.
12. Dzhalilova, Z. O., & Mirfajziev, K. (2021). Latin as the language of medicine. Молодой ученый, (41), 35-37.
13. Dzhalilova, Z. O., Izomova, S. G., & Ahmedova, G. A. (2021). Intercultural communication and the Latin language. Молодой ученый, (24), 398-400.

14. Dzhalilova, Z. O. (2021). History of formation of Latin language. Молодой ученый, (41), 34-35.
15. Obidovna, D. Z. (2022). GENDER SPEECH BEHAVIOR IN THE CONTEXT OF THE SOCIO-LINGUISTIC FACTOR. Web of Scientist: International Scientific Research Journal, 3(6), 190-198.
16. Dzhalilova, Z. O., Hajdarova, N. S., & Tashpulatova, N. A. (2021). Latin in the Contemporary World. Молодой ученый, (24), 400-402.
17. Djalilova, Z. (2022). POLITENESS IN WOMEN'S DISCOURSE IN ENGLISH AND UZBEK LANGUAGES. Academic research in modern science, 1(11), 29-34.
18. Obidovna, D. Z., & Sulaymonovich, D. S. (2022). THE CONCEPT OF" HEALTHY LIFESTYLE" IN PSYCHOLOGICAL RESEARCH. ResearchJet Journal of Analysis and Inventions, 3(06), 53-64.
19. Джалилова, З. (2022). РЕАЛИЗАЦИЯ МАКСИМ ВЕЖЛИВОСТИ В АНГЛИЙСКОМ И УЗБЕКСКОМ ДИАЛОГАХ. Zamonaviy dunyoda innovatsion tadqiqotlar: Nazariya va amaliyot, 1(21), 22-33.
20. Obidovna, D. Z. (2022). A Speech Etiquette Formula for the Gender Communication Strategy. American Journal of Social and Humanitarian Research, 3(10), 44-50.
21. Djalilova, Z. (2022). DISCURSIVE ELEMENTS AND THE CATEGORY OF POLITENESS. Academic research in modern science, 1(12), 8-14.
22. Джалилова, З. О. (2022). НУТҚ ҲАРАКАТЛАРИДА ХУШМУОМАЛАЛИКНИНГ ГЕНДЕР ХУСУСИЯТЛАРИ. МЕЖДУНАРОДНЫЙ ЖУРНАЛ ИСКУССТВО СЛОВА, 5(5).
23. Obidovna, D. Z. (2022). DISTINCTIVE FEATURES OF MALE AND FEMALE ORAL SPEECH IN MODERN ENGLISH. International Journal Of Literature And Languages, 2(10), 14-21.
24. Obidovna, D. Z. (2022). THE MAIN CONCEPTS OF POLITENESS IN MODERN LINGUOPRAGMATICS: THE POLITENESS PRINCIPLE BY J. LEECH. International Journal of Pedagogics, 2(11), 15-20.
25. Djalilova, Z. (2022). GENDER DIFFERENTIATION OF DISCOURSE ELEMENTS AS INDICATORS OF POSITIVE AND NEGATIVE EVALUATIONS. International Bulletin of Applied Science and Technology, 2(12), 55-63.
26. Djalilova, Z. (2022). GENDER-DETERMINED DIFFERENCES IN THE SPEECH OF LITERARY CHARACTERS. Eurasian Journal of Academic Research, 2(12), 210-215.
27. Obidovna, D. Z. (2022). GENDER DIFFERENTIATION OF MASCULINE AND FEMININE VERBALIZATION. European International Journal of Multidisciplinary Research and Management Studies, 2(05), 59-65.
28. Djalilova, Z. O. (2021). Studies on gender linguistics in the field of Uzbek language. Academic research in educational sciences, 2(3), 391-397.
29. Obidovna, D. Z., & Sulaymonovich, D. S. (2022). Physical activity and its impact on human health and longevity. Достижения науки и образования, (2 (82)), 120-126.
30. Хидоятов, Б. А. Микроциркуляторное русло кишечника и поджелудочной железы и его особенности при экспериментальном сахарном диабете / Б. А. Хидоятов, А. Т. Ахмедов // Морфология. – 2008. – Т. 133. – № 2. – С. 145-146. – EDN JUTXTT.
31. Ахмедов А.Т., Особенности иммунной системы при врожденных пороков сердца, // EUROPEAN JOURNAL OF MODERN MEDICINE AND PRACTICE. – 2022. Vol. 2 No. 3 EJMMP. – С. 35-40. [Akhmedov A. T., Features of the immune system in congenital heart

defects, // EUROPEAN JOURNAL OF MODERN MEDICINE AND PRACTICE. – 2022. Vol. 2 no. 3 EJMMP. – pp. 35-40 [in Russian]

32. Ахмедов А.Т., Сравнительная оценка иммунологических параметров лабораторных животных аутоимплантации тимуса в динамике наблюдения, // EUROPEAN JOURNAL OF MODERN MEDICINE AND PRACTICE. – 2022. - Vol. 2 No. 3: EJMMP. С. 40-45 [Akhmedov A. T., Comparative evaluation of the immunological parameters of laboratory animals after thymus autoimplantation in the dynamics of observation, // EUROPEAN JOURNAL OF MODERN MEDICINE AND PRACTICE. - 2022. - Vol. 2 no. 3: EJMMP. C. 40-45 in Russian]

33. Akhmedov A.T. (2022). COMPARATIVE EVALUATION OF IMMUNOLOGICAL PARAMETERS OF LABORATORY ANIMALS WITH THYMUS AUTOIMPLANTATION IN THE DYNAMICS OF OBSERVATION.// EUROPEAN JOURNAL OF MODERN MEDICINE AND PRACTICE. - 2022. - Vol. 2 no. 3: EJMMP. C. 40-45 in Russian]

34. Akhmedov A.T. (2022). COMPARATIVE EVALUATION OF IMMUNOLOGICAL PARAMETERS OF LABORATORY ANIMALS WITH THYMUS AUTOIMPLANTATION IN THE DYNAMICS OF OBSERVATION.