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Efficiency of Endosurgical Ovarian Decortication in the Treatment of Polycystic Ovarian Syndrome

[Z.F. Solieva](#)¹, [S.B. Burkhanova](#), [E.A. Gafurova](#), [Sh.A. Sharipova](#)

ABSTRACT

Background. In the case of failures in the recovery of women's menstrual cycle disorders and fertility, the incidence of polycystic ovary syndrome is 22.0% according to various sources. The aim of the study was to assess the effectiveness of ovarian decortication surgery practice in the treatment of polycystic ovary syndrome (PCOS).

Materials. 60 PCOS existing women were included in the study. The main group was formed by 30 women for whom ovarian decortication was applied due to PCOS, and the comparison group-30 PCOS, but women who refused to surgery. The average age of those included in the study was 28.5 ± 2.2 years. All women included in the study have repeatedly stimulated their ovulation using a clostilbegit drug. In all patients, complete clinical and laboratory studies were carried out, which included hormonal, ultrasound examinations. Ovarian decortication in patients surgical practice was carried out on the endoscopic device "Karl Storz".

Conclusion. In the treatment of polycystic ovary syndrome in women, endosurgical ovarian decortication is considered an effective and safe method that does not have a side effect on the ovarian reserve, and leads to stimulation of ovulation, and an increase in pregnancy rates up to 83.3%.

Key words: ovarian polycystosis syndrome, laparoscopy, ovarian decortication

INTRODUCTION

Polycystic Ovary Syndrome (PCOS) – is characterized by multifactorial heterogeneity, accompanied by hyperandrogenic, chronic anovulation, ovarian cystosis changes and enlargement, menstrual cycle disorders and infertility [1-5].

PCOS incidence is 5-10% in women of reproductive age, while in endocrine infertility caused by PCOS, It is 56.2%. In the structure of infertile marriage, this pathology is 20-22%, taking 5-6 places [6-10].

There are menstrual cycle disorders in women with PCOS 17-46%, in hyperandrogenic (hyperandrogenism) –72-82%, and in the anovulatory infertility structure–55-91% [10-15].

Currently, PCOS is 5-15% found in women of reproductive age, which indicates that this disease should be considered the most common endocrine pathology leading to infertility [16-17].

Infertility, menstrual cycle disorders, hirsutism, and obesity are considered signs of PCOS and require treat-

¹ Master of the 2nd year of the Department of Obstetrics and Gynecology of the Tashkent Medical Academy, Tashkent, Uzbekistan, e-mail: zebunisosolieva27bukhara@gmail.com

ment in women. The development of effective methods of diagnosing infertile women associated with polycystic ovary syndrome and aimed at restoring fertility after laparoscopic treatment, as well as improving approaches, remains one of the urgent problems that need to be solved today. Today, several endoscopic surgery methods have been proposed and implemented in the treatment of patients with PCOS [18,20], including ovarian decortication. However, the effectiveness of this endochirurgical operation in PCOS women has not been studied until today.

The purpose of the study has consisted in assessing the effectiveness of endosurgical operation ovarian decortication in the treatment of polycystic ovary syndrome (PCOS).

MATERIAL AND METHODS

60 PCOS existing women were included in the study. The main group was formed by 30 women for whom ovarian decortication was applied due to PCOS, and the comparison group-30 PCOS, but women who refused surgery. The average age of those included in the study was 28.5 ± 2.2 years.

All women included in the study have repeatedly stimulated their ovulation using a clostilbegit drug. In all patients, complete clinical and laboratory studies were carried out, which included hormonal, and ultrasound examinations.

Ovarian decortication in patients' surgical practice was carried out on the endoscopic device "Karl Storz". In the ovarian whitish shell, small incisions of 4-6 pieces were made. A statistical analysis of the results of the study obtained was carried out using the Student t-test.

RESULTS

The main complaints of women consisted of impaired menstrual function and infertility. Among women of the group, menstrual cycle disorders manifested as follows: in 9 women (30.0%) in the form of polymenorrhea, in 7 women (23.3%) in the form of opsomenorrhea, and in 8 women (26.7%) in the form of oligomenorrhea. Algomenorrhea-observed in 6 women (20.0%) (see Figure 1).

Primary infertility was detected in groups of 74.6% and 54.3% respectively, and secondary infertility in groups of 27.5% and 48.3% respectively ($p < 0.05$). 21 (26.2%) women complained of increased body weight-obesity.

The laparoscopic surgical procedure was performed in all women, either at the beginning or in the middle of the follicular phase of the menstrual cycle on a scheduled basis. Laparoscopic surgery was carried out according to

generally accepted methods. In women who have PCOS, ovarian volume, $12.5 \pm 0, 1 \text{ sm}^3$ because of the greater than double ovarian decortication surgery practices were carried out ($p < 0,01$).

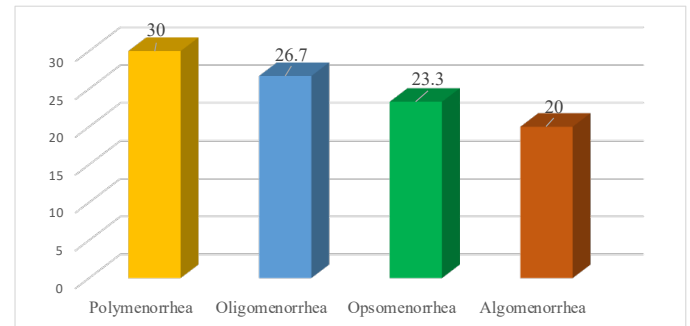


Figure 1. The weight of the menstrual cycle disorder in women included in the study, %

During the execution of laparoscopic surgical procedures, no complications were observed. The laparoscopic surgery ended both in the case of any type and with a thorough washing of the abdominal section with a 0.9% solution of the offspring using an aquapurator.

On the 2nd day of the ovarian decortication surgery in 26 (86.1%) women, as a result of the restructuring of the endocrine system in response to laparoscopic surgery on the ovaries, as well as a positive response of the endometrium to the laparoscopic surgery, a menstrual reaction was observed. Laparoscopic operations were performed in 94.6% using spinal anaesthesia in combination with intravenous anaesthesia in 5.4% under endotracheal anaesthesia.

The long-term results of laparoscopic surgical procedures performed due to polycystic ovary syndrome were evaluated by conducting a prospective study in women: this was done using an assessment of the frequency of the recovery of menstrual function and the frequency of fertility recovery.

The resumption of the menstruation function was observed at 85.6%, of menstruation function was assessed on the basis of two-phase rectal temperature, folliculometry in ultrasound examination and the detection of signs of ovulation. Pregnancy occurred in 25 (83.3%) women (see Figure 2).

In addition, depending on the type of laparoscopic surgical procedure used by us, laparoscopic treatment in 30 women who have undergone laparoscopic surgical procedure due to PCOS is 83.3% of the total pregnancy weight when evaluating the long results, this indicator indicates that ovarian decortication used in these women is highly effective than surgical practice.

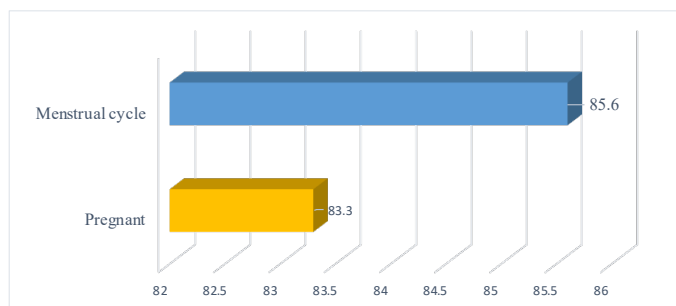


Figure 2. Recovery weight of menstruation and fertility in women included in the study, %

Thus, the method of laparoscopy is a highly effective method in the treatment of PCOS. This is due to the Lower days in the hospital of women, the use of fewer drugs, the lower cosmetic effects, and faster recovery.

DISCUSSION

In failures in the recovery of menstrual cycle disorders and fertility, of women's the incidence of polycystic ovary syndrome according to various sources is from 20.0% to 22.0% [4-8].

Laparoscopic treatment of polycystic ovary syndrome at the present stage of development of reproductive surgery is considered an effective and basic method of treatment. Although numerous studies have been conducted on the reproductive health of women with PCOS, however, studies aimed at evaluating the effectiveness of ovarian decortication operations have not been conducted [10-20].

Therefore, in women with ovarian polycystosis syndrome, it is important to use the practice of ovarian decortication surgery and evaluate its effectiveness in stimulating ovulation and increasing fertility frequency. Currently, the role of laparoscopic surgical practices in the conduct of women with PCOS is increasing. Thus, the use of laparoscopic surgery in cases where conservative therapy performed in the treatment of women with PCOS has not worked, allows you to carry out measures aimed at diagnosing the causes of infertility associated with ovarian polycystosis syndrome, restoring the menstrual cycle and fertility.

It should also be noted that the effectiveness of treatment in connection with polycystic ovary syndrome can be increased only with a comprehensively differentiated approach to the problem of infertility. Thus, our research results have proven the high efficiency of ovarian decortication surgery in restoring fertility in infertile women associated with ovarian polycystosis syndrome.

CONCLUSION

In the treatment of polycystic ovary syndrome in women, endosurgical ovarian decortication is considered an effective and safe method that does not have a side effect on the ovarian reserve and leads to stimulation of ovulation, and an increase in pregnancy rates of up to 83.3%.

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

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

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**TUXUMDONLAR POLIKISTOZ SINDROMINI
DAVOLASHDA TUXUMDONLAR DEKORTIKASIYASI ENDOXIRURGIK JARROXLIK
AMALIYOTINI SAMARADORLIGI**

**Solieva Z. F., Burkhanova S. B., Gafurova Ye. A.
Sharipova Sh.A**

Toshkent tibbiyot akademiyasi

ABSTRAKT

Dolzarbligi. Ayollar xayz sikli buzilishlari va fertilligini tiklanishidagi muvaffaqiyatizliklarda, tuxumdonlar polikistoz sindromini (TPS) salmog'i turli mabalgarga ko'ra 20–22,0%ni tashkil etadi. Tadqiqotning maqsadi tuxumdonlar polikistoz sindromini davolashda tuxumdonlar dekortikatsiyasi jarroxlik amaliyoti samaradorligini baholashdan iborat bo'ldi.

Materiallar. Tadqiqotga 60 nafar TPS mavjud ayollar kiritildi. Asosiy guruhni 30 nafar TPS sababli tuxumdonlar dekortikatsiyasi jarroxligi qo'llanilgan ayollar va taqqoslash guruxini-30 nafar TPS mavjud lekin jarroxlikdan bosh tortgan ayollar tashkil etdi. Tadqiqotga kiritilganlarning o'rtacha yoshi $28,5 \pm 2,2$ yoshni tashkil etdi. Tadqiqotga kiritilgan barcha ayollarda klostilbegit saqlovchi dori yordamida bir necha bor ovulyasiyasini stimulyasiyasi amalga oshirilgan. Barcha bemorlarda gormonal, ultratovushli tekshiruvlarni o'z ichiga olgan to'liq klinik-laborator tadqiqotlar o'tkazildi. Bemorlarda tuxumdonlar dekortikatsiyasi jarroxlik amaliyoti "Karl Storz" endoskopik qurilmasida amalga oshirildi.

Natijalar. Ayollarning asosiy shikoyatlari hayz ko'rish funksiyasining buzilishi va bepustlikdan iborat edi. Ayollarda hayz davrining buzilishi quyidagicha namoyon bo'ldi: 9 ayolda (30,0%) polimenoreya ko'rinishida, 7 ayolda (23,3%) opsomenoreya ko'rinishida va 8 ayolda (26,7%) oligomenoreya. Algomenoreya-6 nafar ayolda (20,0%) kuzatilgan. TPS sababli bemorlarda o'tkazilgan tuxumdonlar dekortikatsiyasi jarroxlik amaliyotidan so'ng mazkur ayollar fertilligi 83,3% gacha tiklanishi kuzatildi.

Xulosa. Tuxumdonlar polikistoz sindromi mavjud ayollarda tuxumdonlar dekortikatsiyasi jarroxlik amaliyoti samarali usul bo'lib hisoblanib, tuxumdonlar zaxirasiga nojo'ya ta'sir etmasdan, ovulyasiyani stimulyasiyasiga olib kelib mazkur patologiya bilan bog'liq bepust ayollarda homilador bo'lish salmog'ini 83,3%gacha ortishiga olib keladi.

Kalit so'zlar: tuxumdonlar polikistoz sindromi, laparoskopiya, tuxumdonlar dekortikatsiyasi

**ЭФФЕКТИВНОСТЬ ЭНДОХИРУРГИЧЕСКОЙ
ОПЕРАЦИИ ДЕКОРТИКАЦИИ ЯИЧНИКОВ
ПРИ ЛЕЧЕНИИ СИНДРОМА
ПОЛИКИСТОЗНЫХ ЯИЧНИКОВ**

**Солиева З. Ф., Бурханова С. Б., Гафурова Е. А.
Шарипова Ш.А.**

Ташкентская медицинская академия

АБСТРАКТ

Актуальность. При неудачах в восстановлении фертильности у женщин частота синдрома поликистозных яичников (СПКЯ) составляет, по разным данным 20–22,0%. Целью исследования является оценка эффективности применения декорткации яичников у женщин с синдромом поликистозных яичников.

Материалы. В исследование было включено 60 пациенток с СПКЯ. Основную группу составили 30 пациенток с СПКЯ, группу сравнения — 30 пациенток с СПКЯ отказавшихся от оперативного лечения. Средний возраст обследованных составил $31,6 \pm 2,5$ года. Все пациентки в анамнезе получали стимуляции яичников с помощью препарата кlostилбегита. Пациенткам проводили гормональное, ультразвуковое, полное клинко-лабораторное обследование. Пациенткам с СПКЯ проведено эндохирургическое лечение декорткация яичников; показаниями к операции у всех больных были отсутствие эффекта от стимуляции овуляции в течении 3-х менструальных циклов.

Результаты. Основные жалобы женщин заключались в нарушении менструальной функции и бесплодии. У женщин группы нарушения менструального цикла проявлялись следующим образом: у 9 женщин (30,0%) в виде полименореи, у 7 женщин (23,3%) в виде опсоменореи и у 8 женщин (26,7%) в виде олигоменорея. Альгоменорея-наблюдалась у 6 женщин (20,0%). После эндохирургического лечения СПКЯ отмечено восстановление фертильности у 83,3%.

Заключение. Операция декорткации яичников у женщин с синдромом поликистозных яичников является эффективным методом, приводящим к стимуляции овуляции без побочного воздействия на овариальный резерв, что приводит к увеличению частоты наступления беременности до 83,3% у женщин с бесплодием, ассоциированным с данной патологией.

Ключевые слова: синдром поликистозных яичников, лапароскопия, декорткация яичников