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EFFICACY OF ENDOSURGICAL CORRECTION OF FEMALE OVARIAN INFERTILITY

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ABSTRACT

In this study, a comprehensive examination of women with infertility based on clinical, biochemical, and ultrasound methods was carried out. In total, 60 women with infertility who were admitted to the clinic of the Balkh University, Mozori-Sharif, Afghanistan, were examined. Patients were divided into 2 groups - with PCOS and a combination of PCOS with menstrual dysfunction. Conducted a comprehensive treatment to correct the identified hormonal disorders. In the absence of the effect of conservative treatment, endosurgical treatment was performed. The effect of treatment was higher with complex treatment and, if necessary, the use of assisted reproductive technologies.

Key words: polycystic ovary syndrome, infertility, hyperandrogenism, endosurgical treatment.

INTRODUCTION

Relevance. One of the most common causes of female infertility due to ovarian dysfunction is polycystic ovary syndrome (PCOS). The frequency of this pathology is approximately 5-15% (average 11%) in the population among women of reproductive age, and in the structure of endocrine infertility, it reaches 70%, and in women with hirsutism, PCOS is detected in 65-70% of cases [2, 3 , 6]. According to the literature, PCOS in juvenile age among other neuroendocrine disorders was 12% [8].

In chronic anovulation, it ranges from 47.9 to 73%. At the same time, clinical manifestations in the form of hyperandrogenism, infertility and menstrual irregularities occur, according to various authors, in 18.4 - 85% [1,4,5,7]. Most researchers consider PCOS to be a heterogeneous disease, hereditarily caused,

characterized by menstrual disorders, chronic anovulation, hyperandrogenism, an increase in the size of the ovaries and features of their morphological structure: a bilateral increase in the size of the ovaries by 2–6 times, stromal hyperplasia and cell theca, many cystic atretic follicles with a diameter 5–8 mm, thickening of the ovarian capsule [1,7,8].

Insulin resistance has a special place in the etiology of PCOS [2,9]. Another unfavorable factor in the treatment of PCOS is repeated repeated use of ovulation stimulation in infertility, which can lead to the development of endometrial cancer [5,6].

Despite intensive research conducted in our country and abroad, there are still no common ideas about the etiology, pathogenesis, clinical symptom complex of this condition. The effectiveness of endosurgical correction in PCOS and infertility requires further study.

The purpose of this study was to optimize the tactics of treating PCOS in patients with ovarian hormonal infertility.

The object of the study were 80 women of reproductive age with menstrual and reproductive disorders, who were admitted to the clinic of Balkh University, Mozori-Sharif, Afghanistan. The women were divided into 2 groups:

group 1 - 35 women with PCOS with concomitant infertility,

Group 2 - 25 women with PCOS, infertility and menstrual dysfunction.

Control group - 20 healthy women with preserved reproductive function.

Research methods. All patients underwent clinical research methods (collection and analysis of anamnestic data, general examination, gynecological examination), consultations were held with specialists taking into account existing somatic diseases (therapist, endocrinologist and other specialists). It was mandatory to determine the body mass index (BMI-TMI) of patients, which is important in the development of hormonal disorders and infertility.

Laboratory research methods included routine blood tests, as well as biochemical studies - determination of the level of hormones in the blood serum: LH, FSH, prolactin and Testosterone in the early proliferative phase of the cycle.

All patients underwent a dynamic ultrasound examination of the pelvic organs in various phases of the menstrual-ovarian cycle to assess the functional activity of the ovaries and the nature of cyclic changes in the endometrium.

Results of the study and their discussion. The age of the surveyed ranged from 15 to 45 years and averaged 36.7±4.1 years in group 1, 29.8±3.9 in group 2, and 25.4±3.1 years in control group. In groups 1 and 2, most of all were women aged 29-31 years, who accounted for 17 (28.3%) patients, and in the control group, women were aged 21 to 28 years.

The study of the reproductive function of the examined showed that infertility was observed in all patients of groups 1 and 2. The duration of infertility ranged from 3 to 14 years. At the same time, patients with primary infertility were 38 (63.3%), with secondary infertility - 22 (36.7%). It should be noted that primary infertility is more often detected in patients with impaired MOC. This indicates that ovarian dysfunction, hormonal deficiency of ovarian origin often leads to primary infertility. In addition, in patients of group 2, one of the frequent complaints was menstrual dysfunction in the form of irregular menstruation or scanty rare menstrual flow.

Hormonal disorders identified in the examined patients were most often represented by an increase in testosterone (in 32.5%), an increase in the LH / FSH ratio of more than 2.0 (20 patients - 25%), insulin resistance (21.2%), impaired tolerance to glucose (17.5%), elevated prolactin levels (5.12%), hyperinsulinemia (10%) and an increase in 17-hydroxyprogesterone in the blood (7.5%). An increase in the level of androgens was also noted (26 patients - 32.5%), while in 30% of cases the BMI was more than 30.

The study of family history revealed that in 18.75% of women heredity was aggravated by hypertension in parents, and in 6.25% of such data there was no history. Among patients with a burdened history, obesity and increased BMI, hyperinsulinemia and increased glucose tolerance were observed significantly more often compared with women without a history of hereditary hypertension (P=0/033). Among 17 women with increased insulin resistance, 7 (26.9%) patients showed signs of hyperandrogenism.

Hyperinsulinemia, detected in 8 patients, in all cases (100%) was combined with hyperandrogenism. Among patients with impaired glucose tolerance, signs of hyperandrogenism were observed in 3 cases. An increase in insulin or signs of hyperandrogenism with insulin resistance were detected in 17 patients (68%).

The echogram of the ovaries often revealed the persistence of the follicles or the small follicular structure of both ovaries, an increase in their size, and an increased echogenicity of the ovarian capsule. Ultrasound signs of chronic endometritis were characterized by an increase in the size of the uterus, and also revealed its inflammation, swelling, thickening of the endometrium. Ovarian cyst of small sizes from 2 to 5 cm in diameter, mainly follicular, was found in 38 (63.3%).

The absence of a significant effect from the conservative therapy was an indication for surgical correction. All examined patients underwent surgical treatment by laparoscopy. The volume of the operation depended on the ultrasound and intraoperative picture identified before the operation. When a dense albuginea

was detected on the ovaries, pilling was performed with the exposure of one third of the membrane. When multifollicular ovaries were detected, the largest follicles were drilled.

Laparoscopic surgery in patients with polycystic ovary syndrome on the background of obesity and hormonal disorders was performed after preliminary correction of endocrine and metabolic disorders and with the ineffectiveness of 3 courses of ovulation stimulation with indirect and direct inducers.

In the postoperative period, rehabilitation treatment was prescribed, which included the appointment of combined oral contraceptives (COCs) for 3 months, physiotherapy in the form of drug electrophoresis with an enzymatic preparation for the prevention of adhesions and better healing of ovarian tissues. Electrophoresis was performed on the lower abdomen for 5 minutes, in total - 10 procedures.

In group 1, pregnancy occurred within the first 3 months after surgery in 12 (34.3%) women with initially normal uterine size. In 10 (28.6%) women, pregnancy occurred after stimulation therapy during the first 6 months after surgery. The rest of the patients who had uterine hypoplasia or ovarian endometriosis, ovulation stimulation was carried out after 6 months of conservative treatment.

In 52 (86.6%) patients, after a 6-month course of treatment, the menstrual cycle became regular, ovulatory cycles - in 50 (83.3%) cases. However, after discontinuation of treatment, the stimulating effect persisted in 40 (66.7%) obese and overweight patients. The subsequent use of assisted reproduction methods - in vitro fertilization (IVF) contributed to pregnancy in another 30 (50.0%) women. Thus, complex treatment contributed to the restoration of reproductive function and the onset of pregnancy in 52 (86.6%) during the first year after treatment.

Conclusions. 1. The use of modern methods for the diagnosis and treatment of female infertility of ovarian origin allows timely identification of the cause and its pathogenetic correction.

2. Hormonal disorders, the presence of PCOS in women with infertility in the absence of the effect of conservative treatment require endosurgical correction. The effectiveness of treatment increases with an integrated approach using reproductive technologies.

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