

Clinical experience of Guishen pill combined with Diane-35 in the treatment of polycystic ovary syndrome

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Abstract: Polycystic ovary syndrome is one of the most common gynecological endocrine diseases in women. This article mainly discusses the etiology and pathogenesis of polycystic ovary syndrome from the two aspects of traditional Chinese medicine and western medicine, and focuses on the mechanism of action of Guishen Pill. The clinical efficacy of symptoms. Polycystic ovary syndrome (PCOS) is an endocrine disease that mostly occurs in women during adolescence and reproductive age. Patients are characterized by persistent anovulation and ovarian polycystic changes. The clinical manifestations include irregular menstruation, infertility, hirsutism, and acne, obesity, acanthosis nigricans [1]. Traditional Chinese medicine does not have this disease name. According to its clinical manifestations and characteristics, it belongs to "infertility", "oligomenorrhea" and "amenorrhea" [2]. While PCOS may also be associated with a variety of complications, including insulin resistance, type 2 diabetes, and psychiatric disorders, the cause remains unclear. There is relevant evidence that polycystic ovary syndrome and genetic factors, intrauterine factors and environmental factors, as well as epigenetic mechanisms [3].

Keywords: Guishen Pill, Diane-35, polycystic ovary syndrome, clinical efficacy

1. The etiology and pathogenesis of Western medicine

1.1. Family genetic factors

The study found that although the genetic mechanism of polycystic ovary syndrome is not clear, it still exists in the family history. The genes related to hyperinsulinemia are combined with insulin gene, insulin receptor gene and insulin-like growth factor gene [4].

1.2. Environmental factors

Excessive staying up late, overeating spicy and stimulating food, and lack of exercise will affect the hypothalamus - pituitary - ovarian axis, causing disturbance of its regulatory function and thus affecting menstruation.

2. TCM etiology and pathogenesis

The etiology of polycystic ovary syndrome is relatively complex. The disease is mostly caused by its own endowment, improper diet or excessive consumption of spicy stimuli, greasy food, and poor emotional regulation. PCOS is mainly located in the liver, spleen and kidney. belongs to the mixture of false and real, and this is the evidence of false and real. This disease is based on kidney deficiency, secondary to spleen deficiency and liver stagnation, and phlegm-dampness and blood stasis as the standard, showing a syndrome of mixed deficiency and excess. Overflow, resulting in sparse menstruation, or even stopped menstruation, unable to conceive. The spleen governs the transport and transformation, and spleen deficiency will inevitably lead to a low function of the body to transport and transform water and dampness. Blood stasis obstructs collaterals and blood flow is not smooth, which can cause blood stasis again, stasis and stagnation, so that menstrual blood cannot flow down on time, resulting in late menstruation or even amenorrhea. Liver governs stagnation, regulates emotions, and

emotional disorders lead to unsmooth liver qi. disorder, infertility [5].pcos into four types: kidney deficiency syndrome, spleen deficiency and phlegm damp syndrome, qi stagnation and blood stasis syndrome, and liver stagnation and fire syndrome through dialectical etiology and pathogenesis. The principles of treatment are to invigorate the kidney, invigorate the spleen and remove dampness, activate qi and activate blood, and soothe the liver and regulate qi.

3. Mechanism of drug action

3.1. Mechanism of action of Guishen Pills

Guishen Pill comes from "Jingyue Quanshu", the whole prescription: Dodder seed, Eucommia ulmoides to invigorate the kidney and nourish qi, Shudi, Shanyi meat, and wolfberry are used to nourish the kidney and nourish the liver, Angelica, Cyperus officinalis, Chuanxiong to nourish the Qi and nourish the blood, and Poria to nourish the blood. Invigorating the spleen and replenishing qi, the combination of various medicines is used to nourish the liver and kidney, replenish qi and blood, and regulate menstruation. It can nourish the spleen and liver, replenish qi and blood at the same time, and promote the full nourishment of the uterus of Chongren, so as to restore the menstrual cycle of patients and promote follicles. Drain regularly. Modern pharmacological studies have shown that [6-8], Guishen Pill can increase the level of estrogen in serum, reduce the content of luteinizing hormone, improve the ovarian microenvironment, and make follicles develop and ovulate. Studies have shown [9] that quercetin, kaempferol, and β -sitosterol may be the main components of Guishen Pill in the treatment of polycystic ovary syndrome. Quercetin is a flavonoid that has anti-inflammatory and insulin-inhibiting effects [10-13]. Kaempferol is a flavonoid compound with anti-inflammatory, antioxidant, and blood lipid [14-17]. β -Sitosterol is a tetracyclic triterpenoid compound, which has anti-inflammatory, antioxidant, immunomodulatory, hypoglycemic, lipid-lowering, and androgen [18-20].

3.2. The mechanism of action of Diane-35

Diane-35 is ethinyl estradiol cyproterone tablets, containing cyproterone acetate and ethinyl estradiol, is the third generation of oral contraceptives, can reduce the level of free androgen [21], and the incidence of polycystic ovary syndrome. The symptoms of hyperandrogenism are the main symptoms, so the use of Diane-35 treatment can effectively improve the symptoms [22]. However, the drug has strong anti-androgen activity, long-term use will cause excessive stimulation of the ovary, and also affect liver and kidney functions [23], and it is found that long-term use may cause adverse reactions such as nausea and vomiting. Therefore, clinical use is generally used. Combined therapy can enhance the therapeutic effect while ensuring the safety of the therapy [22].

4. Examples of case verification

our outpatient clinic on July 26, 2021 because of "less menstrual flow for 1 year and menstrual arrest for 8 months". The patient was 16 years old with menstrual cramps, 3-4 /38-40 days, normal menstrual volume, light color and thin quality. In the past year, the menstrual flow is gradually reduced, the color is pale and thin, and the menstruation is gradually amenorrhea. In recent months, the weight has gradually increased, the hair is thick, and the abdominal pain occurs. Last menstrual period December 26, 2020. Admission symptoms: The patient is slightly fat, hairy, with a little acne on the face, usually weak, has a quick temper, and sleep quality ; poor, poor diet, dizziness, and loose stools. Pale tongue with white fur, thin pulse. History of marriage and childbearing: Married in 2002, used condoms for contraception after marriage, and has not used contraceptive methods since 2016 but has not yet conceived. Physical examination: The body is slightly fat, the oil secretion on the forehead and nose is usually high, the body hair on the hands, legs and armpits is abundant, and the thyroid gland is not enlarged. Laboratory examination: B-ultrasound on July 5, 2021: polycystic changes in bilateral ovaries, bladder and uterus: no obvious abnormality. Hormone levels measured on the third day of menstruation: FSH:5.12IU/L, LH:14.25IU/L, T:1.51ng/ml, PRL:25.28ng/ml, E2:29ng/ml ; fasting blood glucose: 5.6mmol/L. OGTT: blood glucose 11.83 mmol/L in 30 minutes, 10.15mmol/L in 1 hour, and 6.12 mmol/L in 2 hours. Insulin release test: fasting 25.5; 30 minutes 30.32; 1 hour 80.25; 2 hours 120.53; 3 hours 123.52. Western medicine diagnosis: polycystic ovary syndrome. Chinese medicine diagnosis: late menstruation. TCM syndrome type: kidney-yang deficiency type. Therapeutic principles of TCM: invigorating the kidney and qi, nourishing the blood and filling the essence. Chinese medicine treatment method: Guishen Pill to cure it. Recipe: 12g continuum, 15g Ligustrum lucidum, 10g Cyperus officinalis, 12g Rehmannia

glutinosa, 15g yam, 15g dogwood meat, 12g Poria, 15g Angelica, 15g wolfberry, 10g salt Eucommia, 15g dodder, 6g licorice, decocted in water, one dose per day, Twice a day for 21 days, bleeding on the third day after stopping the drug and start the next cycle, a total of three menstrual cycles were treated. Western medicine treatment: Diane-35 treatment is used to adjust the menstrual cycle while anti-androgen. Methods: From the 5th day of menstruation, take 1 tablet a day for 21 consecutive days, repeat the medication after 7 days of withdrawal, and take the medication for a total of 6 months. The patients were instructed to have a light diet, supplemented with vitamins, increased activity, and controlled weight.

The patient's condition at the second consultation: first, the menstrual cycle basically returned to normal (28 days), and the patient reported that the menstrual volume was slightly less. Second, after a reasonable diet, the weight gradually returned to normal. The third is that the oil secretion of the head and nose is reduced, and the acne has changed.

The patient's situation during the third consultation: First, the menstrual period basically came once every 30 days, and the menstrual volume increased. The second is the basic recovery of facial acne. The third is the improvement of facial oiliness. Fourth, the weight control is ideal, and the appetite returns to normal. The fifth is to review various laboratory indicators after drug withdrawal: T: 0.82 ng/ml; E₂: 65ng/ml; LH: 8.5IU/L; FSH: 5.4IU/L. Insulin release: fasting 15.2; 30 minutes 80.43; 1 hour 50.16; 2 hours 22.53; 3 hours 14.22. The treatment plan of traditional Chinese and western medicine is the same as before, and the patients are instructed to control their weight and pay more attention to their diet.

Case 2 Patient Li, female, 24 years old, the patient reported that menstruation had stopped for more than half a year, the normal menstruation was basically regular, the age of menarche was 13 years old, the menstrual period was five days, and the menstruation was once every 28 days, the amount was small, the color was dark red, and the lower abdomen was bloated, Denied dysmenorrhea, in the past three years, the menstrual flow is small, the menstrual period is 3 days, the menstrual period is delayed to 1-2 months, accompanied by hot flashes and night sweats, which is not treated. In the past six months, the patient had not yet menstruated, with severe facial acne and severe hair loss, so he came to our hospital for treatment, and the outpatient physician treated him with "menstrual disorder". Admission symptoms: acne on the forehead, fine whiskers around the lips, dizziness, tinnitus, soreness and weakness of the waist and knees, sleep well, normal diet, and normal bowel and bladder. No vaginal blood flow, no abdominal pain and diarrhea, red tongue with little coating, and thin pulse. Laboratory examination showed: B-ultrasound on May 6, 2021: stellate blood flow signal can be seen under the intima. Multiple follicles were seen in both ovaries, suggesting polycystic changes in both ovaries. Hormones measured on the third day of menstruation: FSH:4.67mIU/ml, LH:9.55mIU/ml, T:1.84ng/ml, PRL:15.44ng/ml, E₂:33ng/ml. Fasting blood sugar: 5.6mmol/L. OGTT were normal. Insulin release test: fasting 16.1; 30 minutes 55.32; 1 hour 52.16; 2 hours 33.23; 3 hours 23.17. Western medicine diagnosis: polycystic ovary syndrome. TCM diagnosis: amenorrhea. TCM syndrome type: liver and kidney yin deficiency type. Therapeutic principles of TCM: nourishing liver and kidney, nourishing blood and regulating menstruation. Governing Law: Treat with Guishen Pill combined with Diane-35. Guishen Pills: 16g wolfberry, 18g eucommia, 12g angelica, 15g dodder, 12g rehmannia, 15g dogwood, 12g tuckahoe, 15g yam, 6g licorice, 10g chuanxiong, decocted in water, 1 dose a day, twice a day, continuous treatment for 6 months. At the same time, Diane-35 was treated, and the menstrual cycle was adjusted. It was taken from the 5th day of menstruation, 1 tablet per day, for 21 consecutive days, and repeated after 7 days of drug withdrawal, for a total of 6 months.

The situation of the second-diagnosed patients: First, the menstrual cycle was basically normal (30 days). Second, the menstrual flow also returned to normal. Third, facial acne was reduced, and hair loss was significantly improved. The patient's treatment plan was the same as before.

Three patients' conditions: First, menstrual cramps were normal for 30 days. Second, facial acne disappears, and the damaged part of the skin basically recovers. The third is the reduction of hair oil secretion and no longer hair loss. Fourth, review the laboratory indicators after drug withdrawal: T:0.75ng/ml, E₂: 48ng/ml, FSH:5.67mIU/ml, LH:4.55mIU/ml

5. Clinical experience

At present, the treatment methods for PCOS mainly include basic treatment and ovulation induction. Among them, basic treatment includes weight loss, insulin resistance, and androgen level reduction. Drug therapy is the preferred treatment for ovulation induction. Perforation and other surgical treatment methods^[24]. Western medicine treatment of PCOS is mainly symptomatic treatment with long-term use of contraceptives. Western medicine has large side effects and poor patient dependence. The most

important thing is that the recurrence rate is high. The short-term efficacy of traditional Chinese medicine is not significant, but the recurrence rate is relatively low after long-term use, the clinical symptoms are completely improved, and the side effects are small. Diane-35 is an effective drug for the treatment of polycystic ovary syndrome, and the effect of treatment for more than half a year is more obvious. However, hormone therapy has serious side effects and should not be used for a long time. Traditional Chinese medicine can not only strive for the time of reversal of lesions, but also improve clinical efficacy. But it needs to be pointed out that in the actual use process, we should combine TCM syndrome differentiation and Western medicine disease differentiation, and choose the best treatment plan, so as to reduce or reduce the side effects of Western medicine, and to give full play to the advantages of traditional Chinese medicine to achieve the ideal effect for better treatment of polycystic ovary syndrome.

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