

# *Zhang Xiaofeng's clinical experience in the treatment of early-onset ovarian insufficiency of heart-kidney noninterchange type*

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**Abstract:** Premature ovarian insufficiency (POI) is a common disease Professor Zhang Xiaofeng has accumulated a lot of experience in this kind of disease over 30 years. Mr. Zhang believes that this disease clinical heart and kidney do not cross the type is more common, kidney without heart fire is cold, heart without kidney water is heart fire, kidney water is insufficient, not Yangxin, heart fire hyperactive, not embellish cell, cell palace loss leads to ovarian function decline, Yin deficiency symptoms significant, cause menstruation disorder. Professor Zhang believes that clinical treatment can be divided into early and late stages. In the early stage, patients should focus on improving clinical symptoms, while in the late stage, menstrual regulation and pregnancy promotion should be flexively used to regulate menstrual circulation and promote blood circulation, nourish Yin and nourish blood, relieve liver and relieve depression, rationally dispense drugs in the third stage to improve ovarian function and regulate menstrual regulation and promote pregnancy.

## 1. Introduction

Premature ovarian insufficiency refers to the decline or loss of ovarian function, aperiodic or infrequent increase of gonadotropin (FSH > 25 mIU/ml) and decrease of estradiol (E2) concentration in women aged < 40 years, which lasts for more than 4 cycles. The clinical manifestations include sparse menstruation, frequent menstruation or amenorrhea, The decline of fertility even leads to infertility, which is often accompanied by motor dysfunction (such as hot flashes, night sweats, vaginal dryness, easy mood fluctuation and gradual decline of sexual desire) and osteoporosis and cardiovascular disease caused by estradiol deficiency [1]. It is a clinical syndrome. It is a highly heterogeneous disease, affecting about 1% of women under the age of 40, with an incidence of about 1% and a POI incidence of about 1-7% in China [2-3]. The symptoms caused by POI will have a great impact on women's life and psychology. For example, they only have adverse effects from emotional fluctuations (irritability, sadness, tension and depression) after sleep disorders, to cognitive defects (impaired attention and language ability), and then to social and work (family relations, social isolation, anxiety, fatigue and significant decline in work efficiency), What's more, it will affect

reproduction. The average pregnancy rate of POI patients is less than 1:9200 [4], which is worthy of attention.

## 2. Study on POI in traditional Chinese Medicine

There is no name of this disease in traditional Chinese medicine. We can trace its origin from the characteristics of the disease. *Angelica sinensis* belongs to "blood dryness", "premature menstruation", "infertility", and its symptoms are like "amenorrhea", "infertility", "menstruation before old", "women's visceral irritability", "excessive menstruation" and "too little menstruation".

### 2.1 Ancient studies

The word "premature aging" was first recorded in the Internal Classic *Su Wen*. Women who are "40 years old and Yin Qi comes from half". After the age of 40, their reproductive function declines, and their essence Qi in the kidney is insufficient, so they enter the decay period.

"Qi Qi" in *Su Wen* · on innocence in ancient times means that women's ovarian function declines physiologically from the development of normal physiological menstruation to the period of Qi Qi. However, due to the influence of drinking, daily life, environmental factors and social pressure, contemporary women, Finally, it leads to the dysfunction of kidney Tiangui Chongren cytoplasmic axis, which also shows that the most directly related causes of female premature aging are kidney qi, Tiangui and Chongren.

### 2.2 Modern research

Previous doctors believe that the main root of POI lies in the kidney. For example, Wang Xiaoyun [5] believes that POI is mainly kidney deficiency, kidney essence deficiency and early exhaustion of Tiangui are the main pathogenesis of POI, and normal menstruation is based on vigorous kidney qi. Yang [6] believes that this disease is related to kidney deficiency. Clinically, it is found that this disease is often seen after abortion, after palace clearing, after multiple abortions and miscarriages, resulting in direct damage to the uterus and veins, and then damage to the Chong Ren two veins, resulting in loss of kidney essence. Therefore, the main reason for POI is premature exhaustion of essence and Qi in the kidney. Xu [7] believes that the pathological basis of this disease is the weakness of vegetarian spleen and kidney, the lack of postnatal transportation, the lack of Qi, blood and semen, and the emptiness of blood sea. Spleen deficiency can not transport body fluid, resulting in phlegm dampness hindering the uterus, phlegm and blood stasis hindering the normal menstrual cycle rhythm, which occurs in this disease.

Xia's [8] theory of heart kidney uterus axis holds that the heart kidney intersection is the core of the heart kidney uterus axis. The combination of heart and kidney makes the mind think clearly, and the heart governs the mind. It coordinates and unifies, regulates the balance of the growth and decline of yin and Yang in the menstrual cycle and the function of alternating storage and diarrhea in the uterus, and maintains the normal menstrual cycle and reproductive rhythm. Stay up late, anxiety, stress, drinking, smoking, lust, etc.), the pathological basis is still kidney deficiency, but the vein stasis continues to run through the course of the disease.

Huang [9] believes that kidney deficiency is the foundation and blood stasis is the standard. In the study of the etiology and pathogenesis of POI, social phenomena (staying up late, anxiety, stress, drinking, smoking, lust, etc.) should be combined. The pathological basis is still kidney deficiency, but vein stasis continues to run through the course of the disease

Professor Zhang Xiaofeng takes kidney deficiency as the main factor and heart and kidney insufficiency as the multiple factors of the disease. The pathogenesis of POI is mostly accompanied

by liver depression or blood deficiency. Women are based on blood, liver and kidney are the congenital foundation, liver and kidney are homologous and essence and blood are generated each other. If the liver Yin blood is insufficient or the liver is not lax, the Chong Ren imbalance will cause the excessive accumulation of blood and the occurrence of POI. In addition, the liver governs the drainage, hides blood and regulates the normal physiology of menstruation. The liver is closely related to the prosperity of Chong Ren, so the stagnation of liver qi, the loss of blood storage function, and the abnormal discharge occur in this disease. Professor Zhang has accumulated 30 years of clinical experience and believes that POI mainly focuses on kidney deficiency and heart kidney disharmony. Clinically, patients with heart kidney disharmony are more common. If the kidney has no heart fire, the heart will be cold, if the heart has no kidney water, the heart will be hot, the kidney water is insufficient, the heart will not nourish the heart, the heart fire will be excited, the lower part will not moisten the cells, the cell palace will be out of nourishment, and even the kidney essence will be lost, and the heart fire will be hyperactive. POI is not only the process of gradual decline of ovarian function to failure, but also the result of gradual deficiency of kidney essence and Qi.

### **3. Mr. Zhang's experience in clinical certification**

#### **3.1 Integration of Chinese and Western medicine, four diagnosis and reference**

During his clinical treatment, Mr. Zhang focused on four examinations, supplemented by a series of Western medical examinations. By looking at his spirit, shape, body and appearance, smelling his voice and language, asking his medical history, cutting his pulse, he judged the rise and fall of Qi and blood in the patient's body fluid, deficiency and excess of viscera, and detected the levels of follicle stimulating hormone, luteinizing hormone and estrogen by checking the anti Mullerian hormone and sex hormone series, and detected the reserve function of ovary, Basic body temperature was measured to observe ovarian ovulation function, gynecological color Doppler ultrasound to observe uterine size and shape, endometrial thickness and ovarian condition, integrated traditional Chinese and Western medicine, syndrome differentiation and treatment.

#### **3.2 Phased treatment, integrated traditional Chinese and Western Medicine**

In clinical practice, Mr. Zhang believes that the main direction for POI patients is to improve symptoms and treatment. POI patients with heart kidney incompatibility are often characterized by hot flashes, night sweats and insomnia, accompanied by oligomenorrhea or sparse hair. In addition to menstruation, they should first focus on treatment rather than adjustment, mainly on improving patients' symptoms, and then use kanlijiaotai decoction (Angelica 12g, fried white peony 15g, raw land 15g, Salvia miltiorrhiza 15g, keel 30g, oyster 30g, salt Anemarrhena 9g, Ophiopogon japonicus 12g, Achyranthes bidentata 15g, Coptis chinensis 6g, floating wheat 30g, licorice 6g, cinnamon 3g) It is intended to connect the heart and kidney, harmonize Yin and Yang, make the heart moist, warm the heart fire of the kidney, level Yin and Yang, and reconcile Qi and blood. For those with obvious sweating, change the dosage of floating wheat to 50g, add Schisandra chinensis to astringe and fix sweat, for those with severe insomnia, add cauliflower, Poria and Polygala tenuifolia to calm the heart and calm the mind, for those with dry mouth and pharynx, add North sea cucumber to replenish qi, nourish yin and moisten the lung, for those with weak waist and knees, add Eucommia ulmoides and Dipsacus to tonify the kidney and strengthen the waist, and for those with hyperactivity of For those with dizzy tinnitus, Gastrodia elata and Uncaria are added to calm the liver and latent Yang, and for those with prolonged menstruation, Virginia lucidum, clematis, Xicao charcoal and cuttlebone are added to supplement the liver and kidney, firm astringency and stop bleeding.

#### 4. Examples of medical records

Chen Mou, female, 32 years old, married, was first diagnosed on September 30, 2020. She went to see a doctor for more than one year due to less menstruation. Previous menstruation was 5-6 / 23-26, with small amount, red color, no blood clot and abdominal distension. LMP: September 28, 2020, the third day of the current menstrual period, with small amount and abdominal distension. It is usually less, dry and astringent. Occasionally hot, sweating, premenstrual irritability, often insomnia, dreaminess, night sweats, two stool adjustments. The tongue is red, with little moss and fine pulse. Reproductive history: g0p0. Auxiliary examination: six items of sex hormones: FSH: 26.45 IU / L, LH: 13.25 IU / L, E2: < 18.35 pg / ml, P: < 0.05 ng / ml, PRL: 8.29 ng / ml, t: 0.093 ng / ml. AMH: 0.6 ng/mL. Gynecological B-ultrasound: normal uterus, AFC: L: ⑤, R: ②. Western medicine diagnosis: 1. Poi. TCM diagnosis: menorrhagia (kidney deficiency, yin deficiency, heart and kidney failure, Qi and blood Chong Ren deficiency), treatment: Nourishing Yin and blood, communicating heart and kidney, harmonizing Chong Ren. Cube: add or subtract 6 doses of Tongjing Huoxue Decoction, take it in water, twice a day. On October 6, the second diagnosis, the menstruation was clean on the 6th, and now it is normal. There is still heat, sweating, upset and sleepless. The rest can be considered. Considering the patient's fertility requirements, the patient's symptoms should be improved after the menstruation is clean. Kanli Jiaotai decoction is used to add or subtract, which is intended to connect the heart and kidney and reconcile Yin and Yang, Take into account the development of follicular intima. 14 doses, decocted in water, twice a day. The patient was conditioned for 3 cycles, and the patient was asked to recheck the sex hormone on the 2nd-5th day of the next menstrual period. The patient was returned on January 20, 2021. After the symptoms were significantly relieved, LMP: on January 10, 2021, the menstrual volume was slightly more than before, the color was red, there was no block, and the breast was swollen and painful before menstruation. There was no obvious heat and sweat, and sleep was significantly improved. Auxiliary examination: six items of sex hormones were rechecked on January 12, 2021: FSH: 15.00 IU / L, LH: 8.90 IU / L, E2: 33 pg / ml, P: < 0.05 ng / ml, PRL: 8.63 ng / ml, t: 0.01 ng / ml. Today's B-ultrasound: em: 0.8cm, AFC: R: ⑤, L: ⑤

#### 5. Conclusions and Discussion

To sum up, POI is a common gynecological disease with complex etiology and multiple clinical symptoms, which is difficult to treat. Because the patient is younger than 40 years old, the use of hormone drugs makes it difficult for the patient to accept. Systematic meta-analysis shows that traditional Chinese medicine for tonifying the kidney and activating blood circulation has a significant effect on improving women's hormone level, and can be used as an alternative treatment for traditional diseases with reduced endocrine function [10]. In clinical practice, traditional Chinese medicine combined with estrogen and progesterone can significantly improve ovarian function and sex hormone level [11]. Professor Zhang Xiaofeng often uses the method of communicating heart and kidney to treat early-onset ovarian insufficiency of heart kidney disharmony, and the effect is remarkable. Its self-made formula –Kanli Jiaotai decoction (Angelica sinensis 12g, fried white peony 15g, raw land 15g, Salvia miltiorrhiza 15g, keel 30g, oyster 30g, salt Anemarrhena 9g, Ophiopogon japonicus 12g, Sichuan Achyrantes bidentata 15g, Coptis chinensis 6g, floating wheat 30g, licorice 6g, cinnamon 3g). This empirical formula comes from the addition and subtraction of Kanli pill and Jiaotai Pill. Kanli pill is derived from the wonderful recipe for taking life Volume II. It is intended to replenish essence and blood, help the heart and kidney, and calm Yin and Yang; Jiaotai Pill comes from Han's medical skill Volume II, which is intended to treat insomnia caused by heart and kidney failure. Li Shizhen said, "one cold and one heat, one Yin and one Yang, and the combination of yin and Yang is the best recipe, so it has the harm of success without partial victory." Fang zhongkanli

pill removes the warm and dry Ligusticum chuanxiong and is easy to make a living in a cooked place to increase its effect of cooling blood and clearing heat; Then combined with Jiaotai Pill, Achyranthes bidentata, Ophiopogon japonicus, traffic heart and kidney; Add keel, oyster town to calm the mind, hide Yang and collect Yin; Add Salvia miltiorrhiza into the heart to cool and nourish blood; Floating wheat can nourish the heart, nourish yin and sweat; Licorice reconciles various drugs. The whole square plays the skills of communicating the heart and kidney, harmonizing Yin and Yang, and diving Yang into yin.

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