

# *TCM Treatment of Ovarian Ovulation Disorder Infertility*

Zhang Huaiyue<sup>1</sup>, Chen Mei<sup>2,\*</sup>

<sup>1</sup>*Shaanxi University of Traditional Chinese Medicine, Xianyang, Shaanxi, 712000, China*

<sup>2</sup>*Department of Assisted Reproduction, Affiliated Hospital of Shaanxi University of Chinese Medicine, Xianyang, Shaanxi, 712000, China*

*\*Corresponding author*

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**Abstract:** Ovarian ovulation dysfunction is one of several important factors that lead to female infertility, which will not only cause infertility, but also cause a series of other metabolic disorders. In the past, the adverse reaction was large, and acupuncture has unique advantages in this treatment. A large number of TCM studies on ovulation disorders have confirmed that the adverse reactions caused by acupuncture treatment are small and have gained great attention in clinical practice. This academic paper expounds the relevant content of Chinese medicine, the diagnosis and treatment of ovarian ovulation and diagnosis and pathogenesis of infertility. Given that TCM treatment has less complications and low cost, TCM treatment is more inclined in clinical experiments. The selected treatments include acupuncture, moxibustion, electroacupuncture, acupoint injections, and acupoint burrowing, which mainly focus on the Ren, Spleen, and Bladder meridians. A review of the literature and data shows that the frequency of meridians used in Chinese medicine for the diagnosis and treatment of ovarian ovulation dysfunction infertility mainly includes the Foot-Sun-Bladder Meridian, the Foot-Shoin-Kidney Meridian, the Foot-Taiyin-Spleen Meridian, the Ren, Supervisor, and the Extra-Meridian Qi-Chinese Points.

## **1. Introduction**

Barrenness[1]Has been listed as the third largest disease in the world, after the top two cardiovascular diseases and tumors. With the continuous progress of social economy, women are facing various pressures under the same social background, which brings harm to women both physically and psychologically. The incidence of infertility in women of childbearing age in China is also increasing year by year. The clinical definition of infertility is no contraception for 1 year or more, and no pregnancy in normal sexual life[2]. In our country, with the continuous development of social economy, residents life rhythm is constantly changing, in the work pressure increasing, stay up late time increased under the background of the incidence of infertility increased significantly, among them, the ovarian ovulation disorder is one of the main causes of infertility, its etiology pathogenesis, syndrome complex, diagnosis and treatment process and method is also very difficult[3]. Overall, the current study shows that the effectiveness of TCM in treating ovulation disorder infertility still needs more studies to verify. Although some studies have shown that TCM can promote pregnancy through a series of mechanisms, more large-scale randomized controlled

trials are still needed to verify the effectiveness and safety of TCM in the treatment of ovulatory infertility.

## 2. Etiology of ovulatory infertility

### 2.1 Etiology and pathogenesis of TCM

Traditional Chinese medicine believes that only the essence of the kidney is abundant, the day is out of the source, can be normal tide, women can be pregnant. Huangdi Neijing[4] In the proposed main kidney seal, It closes and hides one's essence., kidney essence is abundant day Gui source, menstruation can be normal to tide. *Fu Qingzhu Nike*[5] words: "water out of the kidney", clearly pointed out that kidney tonifying kidney is the main treatment of female menstrual diseases. Women pregnancy is also related to the liver, the liver likes to adjust, the liver is the hub of a qi, liver qi drainage degree, the blood can be normally hidden in the liver. The filling of qi and blood in the liver determines whether the woman's menstrual blood can come on time, the woman is born with blood, if the liver imbalance, the liver blood can not exercise its normal function, resulting in the loss of menstrual blood, so the symptoms of late menstruation or not closed. Gynaecology Jade ruler[6] is recorded that qi stasis will lead to liver damage, so there will be less menstrual volume, later menstrual period and shorter menstrual cycle, liver blood storage, qi injury liver, then liver blood is insufficient, so the menstrual volume is less, the menstrual period is delayed, and the cycle becomes shorter. The Plain Questions Discussion on Pain states[7]: Qi serves as the commander of Blood, while Blood acts as the mother of Qi. When Qi becomes disordered, Blood follows into chaos, thus giving rise to various pathological manifestations. Accumulation of phlegm-dampness in the body particularly depletes kidney yang qi. When yang deficiency occurs, the warming and activating functions become impaired, leading to diminished transformative capacity. As stated in the Golden Mirror of the Medical Tradition[8]: 'In those with corpulent constitutions where phlegm accumulates, lipid membranes obstruct the uterine chambers, resulting in infertility. Zhu Dan Creek in the "Dan Creek Heart law"[9] put forward: women obesity is irregular menstruation, thus lead to infertility. The kidney can not normally gasification water, the liver can not drain the vent machine, phlegm damp inhibit the body, follicles can not be well developed, and even eliminate difficulties, inherent infertility.

## 3. Acupuncture for the treatment of ovulation disorder infertility

### 3.1 Acupuncture for treatment

Acupuncture is one of the ways to diagnose and treat diseases in traditional Chinese medicine. Under the specific guidance of medicine, it has a wide range of indications, obvious curative effect, convenient operation and economic safety, and has been unanimously recognized by medical workers and patients[10]. Acupuncture can promote blood circulation, improve nutrient supply to the ovarian tissues, and also promote the absorption of nutrients, thus improving ovarian function and increasing the ovulation rate. The effect of acupuncture can also regulate the psychological and emotional state, reduce anxiety and depression, and thus improve the psychological condition of the patient. Acupuncture can also increase the total immune cells, enhance the ability of the body's free radical scavenging, and reduce the cells and tissues damaged by the possibility. Jian-fang guo[11], in the period of early, middle, late treatment has its unique point selection regularity, in menstruation early acupuncture pole, Zusanli (double), yuan, gas sea points, and acupuncture method, moxibustion or electroacupuncture to improve the stimulation degree, menstrual acupuncture, Zusanli (double), valley (double), three Yin (double), qi, counterclockwise diarrhea;

menstrual end acupuncture kidney yu, secondary mash, repair or moxibustion. Wei Lingxiao[12] took Taixi, Hetian (double), Guan Yuan, Zusanli (double), three Yin cross (double), in the fifth day of menstruation to start treatment, can add moxibustion or electric acupuncture, to promote the ovulation function of the ovary. Zhang Hong et al[13] used acupuncture to replenish qi and blood to diagnosis and treatment, mainly take three Yin jiao (double), Zusanli (double), Guan Yuan, Zhongpole, kidney Yu and other points, can be added moxibustion to promote the generation of qi and blood. Wang Chuannian [14], when applying acupuncture for infertility treatment, selected Guanyuan (CV4), bilateral Zusanli (ST36), Zhongji (CV3), and bilateral Sanyinjiao (SP6). The acupuncture was administered on days 2-3 post-menses, employing compound reinforcing-reducing techniques until patients perceived mild warm sensations, at which point the procedure was concluded. Song Fengjun et al[15], during acupuncture treatment, the middle pole, Shenque, blood sea, uterus and bilateral three Yin intersection were taken. On the fifth day of menstruation, the bilateral three Yin intersection and Zusanli were moxibustion, when the patient felt the local microheat. The doctor should observe the patient's reaction during moxibustion to prevent burns. Wang Shan[16], in the use of acupuncture technique to treat the disease, the middle pole, Guan yuan, uterus and other acupoints are generally selected, according to the patient's deficiency and deficiency cold and heat with the syndrome, in order to achieve the balance of Yin and Yang, adjust the deficiency and deficiency, so as to improve the pregnancy rate. Overall, the results of the current study show that acupuncture has certain clinical efficacy in the treatment of ovulation disorder infertility, and its safety is high. However, considering the high requirements of acupuncture operation skills and requiring professional doctors to operate, its efficacy needs to be further verified by large-scale, randomized and controlled clinical studies.

### 3.2 Moxibustion treatment

As a traditional TCM therapy, moxibustion is also widely used in the treatment of symptoms related to ovulation disorder. Moxibustion ignites the moxa, directly or indirectly at the patient's acupoints, and determines the length of moxibustion according to the patient's constitution[17]. Moxibustion can promote the blood circulation and metabolism of the human body by acting on the human meridians, thus improving ovarian function and promoting follicle development and ovulation. Studies have shown that placing mugwort on Zusanli, Guanyuan and Qipoints can significantly improve the luteinizing hormone level and ovulation rate of women. Li Xiaoqing et al[18], when using moxibustion treatment, the main point mainly selects guanyuan, uterine point, sanyin intersection, and other points with the syndrome, and the selected point with moxa stick hanging moxibustion can be moxibustion once in the morning and evening, with local warmth as the degree, and stop moxibustion during the menstrual period. Chen Huaihuai et al[19] used moxibustion to treat the disease by taking Shenque and Baihui points and matching them with the evidence.

### 3.3 Electroacupuncture therapy

Electroacupuncture therapy is mainly adapted to the related diseases of microacupuncture, mainly through acupuncture acupoints, after stimulating the acupoints on the acupoints, a method of treating the disease, more choose density wave, current frequency can be chosen according to the severity of the disease and the constitution of the patient[20]. Studies have shown that electroacupuncture treatment can promote follicular development and ovulation, and can improve the level of LH, and maintain its stability during the cycle, which is beneficial to promote the recovery of ovarian function. Teng Hui[21] treats the condition in conjunction with electro-acupuncture, which enhances the level of stimulation from ordinary needling and improves

conception rates. Mi Xiaoying[22] took Guanyuan, Uterus, Ovary and Sanyinjiao points and matched them according to different evidence to improve the ovulation rate. In Wei Wei's electroacupuncture ovulation induction experiment[23], acupoints including Zhongji (CV3), Zigong (EX-CA1), Zusanli (ST36), and Sanyinjiao (SP6) were selected with pattern-based adjunct point combinations, demonstrating enhanced ovarian ovulation rates.

### 3.4 Acupoint injection treatment

Acupoint injection, also known as "water needle", is a kind of drug injection point injection into specific acupuncture point to cure is a traditional disease of TCM disease, is widely used in treating ovarian ovulation infertility, through the acupoint injection treatment of traditional Chinese medicine, hormone drugs, nutrition nerve drugs, etc., through these drugs directly on the human body to treat disease needs[24]. In the process of ovulation infertility, there are many drugs commonly used, such as ovulation drugs, which ovulation drugs are delivered to the body through acupoint injection, which can play a more accurate role in the target tissue, reduce the distribution range of drugs in the body, and improve the utilization rate of drugs. The treatment method of acupoint injection of ovulation induction drugs has also been shown to be an effective treatment method. Tu Guochun [25] administered gonadotropin acupoint injections, primarily selecting Zhongji (CV3), Guanyuan, Qihai, Shenshu, and Ciliao as key treatment points. Overall, acupoint injections is supported by some studies. First of all, it is necessary to pay attention to the choice, dosage and indications of infertility drugs, combined with traditional Chinese and western medicine treatment, and has the characteristics of non-invasive, safety and significant curative effect, but this treatment method needs personalized treatment plan to achieve the best curative effect.

### 3.5 Acupoint line embedding therapy

Acupoint embedding line refers to: according to the traditional Chinese medicine acupuncture and moxibustion, using the common application of silver needle and thread, stimulate the acupoints of biological information, electromagnetic information and nerve information conduction, regulate the body metabolism and immune function, make it in the acupoints stimulate the meridians to achieve the goal of treatment, to improve the physical condition and improve the ability of conception, a method of the collection of TCM acupuncture and embedding therapy experience[26]. Deng Yunzhi [27], when applying acupoint catgut embedding therapy, selected Zhongji, bilateral Zusanli, Qihai, Daheng, and bilateral Sanyinjiao, supplemented by pattern-based adjunct points. Using disposable trocar needles, the surgical catgut was rapidly embedded into the acupoints, achieving a total effective rate of 56.1%.

### 3.6 Application of massage therapy

Massage is a common physical therapy in traditional Chinese medicine, which can improve the circulation of qi and blood, promote the blood supply of reproductive organs, so as to improve ovulation disorders. Massage technology is rich, such as a finger Zen push method, take method, pat method, etc., can be selectively applied for different patients and conditions. Massage therapy can correct the body's incoordination, promote the normalization of ovulation cycle, to achieve the purpose of treating ovulation disorder infertility. Massage therapy can stimulate the acupoints, promote the adjustment of the nervous system, reduce the psychological pressure of patients, and increase the occurrence of ovulation. For example, Shenque point can promote the patients' physical and mental relaxation, regulate the autonomic nerve, and reduce the nervous tension. Gently rubbing qihai, Sanyin and Zusanli points and other points can promote the regulation of the

endocrine system. Du Mai and Ren Mai are commonly used to enhance immunity. Peiding paraaorta and Qihai acupoint has an obvious effect on promoting blood circulation.

#### 4. Conclusion

Traditional Chinese medicine treatment of acupuncture and moxibustion is an important way in the treatment of TCM, it has a balance of Yin and Yang, adjust the deficiency, activating stasis, and currently used in clinical cases of acupuncture and moxibustion treatment also has a lot of, and the treatment of traditional Chinese medicine in the clinical treatment of ovulation infertility has a great advantage, and achieved large clinical trial results. When using the method of acupuncture and moxibustion to diagnose and treat ovulation disorder infertility, the patient's Yin and Yang can be adjusted by acupuncture technique to adjust the patient's endocrine function, so as to achieve the purpose of treating diseases. In guan yuan, zhongji, Zusanli and other acupoints acupuncture, after the continuous injection to enhance its stimulation effect, so as to stimulate the ovarian smooth muscle to promote ovulation, this method will not appear drug resistance or a series of other side effects. Relevant studies have indicated that acupuncture can enhance the neurohumoral regulation of the hypothalamus of patients, thus secreting more gonadal hormones to elevate the content of luteinizing hormone in the body; when electro-acupuncture and oral ovulation stimulant are combined in the treatment of infertility, not only does it improve the effectiveness of the treatment, but it also reduces the side-effects, which is conducive to the recovery of ovary function and conception; acupoint acupuncture submerged treatment can regulate the immune system of the body, reduce the level of immune-suppressing factors and increase the secretion of cytokines, thus improving the body's tolerance for the fetus and increasing the chances of conception; and acupressure treatment can improve the patient's local blood circulation, increase the blood supply to the reproductive organs, and promote the occurrence of ovulation. From this point of view, we can find that acupuncture and other methods of traditional Chinese medicine have great advantages for the treatment of ovulation disorder infertility, and can minimize the serious impact on patients' body when taking drugs, and achieve the purpose of treatment in a minimum impact way. However, Chinese acupuncture and massage also have many problems in the treatment of ovulation disorder infertility, so we should conduct more in-depth research, promote the use of Chinese medicine in clinical practice, and carry out further promotion, so that more patients can achieve the best treatment effect with the least side effects[28].

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