

Discussion on the Understanding and Treatment of Infertility in Traditional Chinese Medicine from the Theory of "Uterus Hiding Diarrhea"

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Abstract: In recent years, the occurrence of infertility has become an important factor that troubles multiple families and affects the emotional relationship between the sexes. How to prevent and treat infertility has also become a difficult problem in clinical treatment. The uterus is a unique and constant organ with functions similar to internal organs for storage and excretion, maintaining a dynamic balance between storage and excretion. They periodically engage in alternating processes of "absorption" and "excretion", with Yin and Yang transforming into each other, jointly maintaining the normal physiology of women. The function of the uterus is closely related to female infertility, and this article attempts to take the storage and excretion functions of the uterus as the starting point. We aim to explore the physiology of pregnancy and the pathogenesis of infertility, with the principle of supplementing when insufficient and clearing when excessive, and with the goal of restoring uterine physiological retention and excretion, provide ideas for clinical treatment of female infertility.

Keywords: Uterus; Preserving and Discharging; infertility; Chinese medicine treatment

1. Introduction

With the increasing richness of modern lifestyle and the quiet impact of unhealthy dietary habits on physical functions, infertility has become a common and difficult disease in contemporary gynecology. Infertility refers to a situation that a man and a woman have regular sexual intercourse without contraception for at least one year and fail to conceive. Infertility is a state of fertility disorder caused by a variety of complex etiological factors, which can be divided into two categories: primary infertility and secondary infertility. The former is referred to as "complete infertility" in Chinese medicine, and the latter is called "disruption of pregnancy", which was first mentioned in the "Qianjin Yaofang" (Thousand Golden Prescriptions) [1]. Since entering the 21st century, the number of infertility cases around the world has been on an upward trend. And people are more concerned about their reproductive health and rights, which has prompted medical practitioners to conduct more in-depth research on infertility. Chinese medicine in the infertility of the understanding is not overnight, as early as the beginning of the Zhou Dynasty, the content of infertility was recorded in "The Book of Changes". And "Internal Classic of Huang Di" of the Western Han Dynasty also introduced infertility. Throughout history, medical practitioners have generally treated infertility based on the theory of tonifying the kidney, believing that kidney-qi deficiency and imbalance of Chong Ren are the main causes of infertility. The uterus is the place where the fetus grows and is the foundation for conception. The rise and fall of the five organs and six viscera, as well as the changes in six external factors, can all infect the uterus. Only when the body's qi and blood are enriched, yin and yang are balanced, and each organ is responsible for its own duties, can the uterus switch on and off in a regular manner, and sperm and ova combine to successfully conceive a fetus.

2. The theoretical basis of the "absorption and excretion" theory

2.1. The meaning of the uterus

"Uterus", also known as the woman's uterus, child place and etc, is a unique female internal reproductive organs. In terms of morphology, "Gezhi Yu Lun - Receiving Fetus Theory" mentions, "The

fusion of yin and yang is necessary for the embryo to solidify. Its place of residence is called the uterus, with a frenulum below and two bifurcates above". "Jing Yue Book" further describes that: "Its shape is like a bowl, one on each side", indicating that the uterus, as a unique term in traditional Chinese medicine, does not fully correspond to the uterus in modern anatomy. The position and shape of the uterus are more similar to the anatomical positions of the uterus, fallopian tubes, and ovaries in modern medicine, while including all their physiological functions. Functionally, the uterus is "extraordinary organ", which has a function similar to storage and excretion of the internal organs, with an ordered and dynamic balance in its physiological state. The function of the uterus is closely related to the woman's menstruation, conception and delivery. And the two appear in an orderly and alternating manner, so that women can have normal menstruation, conception and delivery [2].

2.2. The dialectical unity of preserving and discharging

"Su Wen-On the Five Organs" said: "The common physiological functions of the five Zang-organs are to produce and store essence, so they can be full but not solid. The common physiological functions of the six fu-organs are to receive, transport water and food, so they can be solid but not fully filled." The storage function of the five organs is relative to that of the six organs. In fact, the five organs can store essence and excrete dregs to complete normal physiological activities. The physiological function of the uterus is special. It can not only store essence, but also discharge dross. The two functions are distinct, each according to their time, but they are also interrelated. The uterus shows the function of the human body is part of the operation of the vitality of the body, is the viscera, meridians, qi and blood synergistic effect of the results [3-5]. The functions of the organs are vastly different, and the functions of storage and excretion are also different. Relatively speaking, one belongs to stillness and the other belongs to movement. Therefore, from the perspectives of yin and yang, it can be seen that the storage and reception belong to yin, and the main function is to agglomerate and store; The excretion belongs to yang, which can discharge dross and is positive and perpetual. Therefore, storage and excretion, like yin and yang, have both identity and struggle. The two cannot be reversed and can even transform under certain conditions, achieving self harmony and balance. Storage and drainage are dialectically unified and complementary, and cannot be generalized. The organs and even the human body rely on the coordination and balance of their internal storage and excretion functions to achieve a certain goal.

Menstruation should follow a certain pattern. If there is any disharmony, it will lose its normal pattern and lead to various diseases. The cycle and rhythm of menstruation indicate that the qi, blood, yin, and yang in a woman's body are full and harmonious, and also reflect the balance of storage and excretion in the uterus. The "storage" (thickening and accumulation of the endometrium) and "excretion" (stripping and excretion of the endometrium) of the uterus alternate periodically, maintaining the normal physiology of women. During non menstrual and pregnancy periods, the uterus functions as a storage organ, gradually accumulating fine substances such as blood gas, manifested by the gradual thickening and density of the endometrium. During menstruation and childbirth, the uterus performs the opposite function of storage, which is to expel diarrhea. This is manifested as shedding of the endometrium, removal of dirt, filling of the uterus, timely arrival of menstruation, and safe birth of the fetus [6]. Storage and excretion act according to the situation, with yin and yang transforming into each other, thus jointly maintaining the normal physiology of women. The storage and excretion of the uterus are regulated by the organs, qi and blood, Tiangui, and Chongren, resulting in periodic changes. When the storage and excretion lose their dynamic balance and stability, it will cause the woman's menstrual cycle, pregnancy, and childbirth to lose their routine and change, leading to other diseases [7]. This can be manifested as irregular menstruation, infertility, miscarriage and other pathological conditions.

3. The uterus controls the storage and excretion to conceive a fetus

The physiological function of the ovary belongs to the category of the uterus, so there are two types of effects in the uterus [8]. Firstly, it can produce and expel the ovum, allowing the sperm and the ovum to unite to produce life. The second effect is the storage of nutrients to nurture the fetus. The nutrients is from the endometrium, which grows to accommodate the embryo and provide nutrients for the development of the fetus.

During the menstrual period, the essence in the uterus gradually changes from scarcity to abundance. As a result, it promotes changes in its "storage" and "drainage" functions, with abundant yang energy, open blood chambers, and blood flowing down. After menstruation is clean, the blood chamber closes again. Under the coordinated action of the kidneys, Tiangui, Chongren and Dudai, nourishment is

provided by kidney essence, heart blood, and continuous supply of water and grain essence. The uterus once again stores energy, the yin gradually grows, and the ovum develops and matures to a certain extent. The uterus is stimulated by kidney yang and plays a "excretory" function, allowing the ovum to be released and discharged from the ovary. Under the promotion of qi and blood, it can combine with sperm in the ampulla of the fallopian tube. The fertilized ovum also arrives in the uterine cavity within a certain period of time, during which the endometrium plays a "storage" function and undergoes changes in the proliferation and secretion phases to facilitate the implantation of the fertilized ovum. The uterus itself also functions as a "drainage" to allow the fertilized ovum to move towards the uterine cavity. If the accumulation time of the endometrium is longer than the time for the fertilized ovum to reach the uterine cavity, it can lead to biochemical pregnancy; If the time for the fertilized ovum to reach the uterine cavity is longer than the time for endometrial accumulation, it can lead to ectopic pregnancy. Therefore, this synchronization in time and space is a prerequisite for normal pregnancy, and the "storage" and "drainage" functions of the uterus are dynamically and meticulously coordinated in real-time during this process.

If the pregnancy is complete, then menstruation will stop. The main function of the uterus is to store nutrients, while the heart, kidneys, and other organs provide the necessary nutrients for the pregnancy of the fetus through the cellular veins and collaterals. Coordinate the qi and blood in the uterus, gradually filling the elements to nourish the fetus. In "Fu Qingzhu Nüke", it is mentioned that "If qi is sufficient, it is easy for sperm and ova to combine. And if blood is sufficient, the uterus is easy to conceive a fetus, which are the key to successful pregnancy". The innate nutrients in the kidney are abundant, and with the assistance of the acquired spleen and stomach essence, the rich qi and blood of the heart can nourish the endometrium. The five organs and six viscera work together in the uterus, and the endometrium can accommodate the embryo and provide sufficient nutrition for its development. At full term, the essence and blood of both the uterus and the fetus are full, and the uterus changes from being stored to being emptied, exerting its function of "emptying" and delivering the fetus.

4. Dysfunction of uterine storage and excretion is the key pathogenesis of infertility

Moderate storage and drainage are the concentrated manifestations of uterine physiology, and the material basis is the coordination and unobstructed flow of qi, blood, and body fluids in the human body. Storage and drainage are the functions, and the material basis is the carrier^[9]. The storage and excretion of the uterus undergo periodic changes due to the regulation of organs, qi and blood, Tiangui, and Chongren. If the carrier is damaged, it will lose its function. Any problem in any of the links that leads to abnormal conversion of yin and yang can cause disorder in the storage and excretion functions of the uterus." The Secret Records of the Stone Chamber" pointed out that: "There are ten reasons why women cannot conceive", they are cold womb, deficiency-cold of spleen and stomach, liver qi stagnation, excessive phlegm-dampness, kidney qi deficiency, qi and blood deficiency, etc. It can be seen that factors such as qi and blood in the organs can affect the normal storage and excretion of the uterus, leading to infertility^[10].

4.1. Insufficient essence storage and excessive excretion

"The Women's Rules" said "If genuine-Yin is already diseased, women with insufficient yin blood cannot conceive", "The women who cannot conceive are due to insufficient qi and blood". The reason why men and women can conceive a fetus is fundamentally due to the abundance of qi and blood. If they have already conceived but cannot grow normally, it is nothing but because they are fundamentally unstable. Qi is from the kidney, which is the fundamental source of Qi in the human body. The second is the spleen and stomach, which are the main sources of qi generation. The third is the lungs, which are responsible for breathing and generating pectoral qi. The key to the generation of blood lies in the stomach digesting food, the spleen producing clear qi, transporting turbid qi, and then transporting qi to the heart and lungs, transforming qi and blood. The second is that the kidneys store essence, which generates marrow and fills the bone, serving as the source of blood transformation. The liver can also store blood and control dispersion, which can maintain the normal circulation of qi and blood. Therefore, the qi and blood of the uterus are influenced by the viscera, and under the main action of kidney qi and Tiangui, they gather the blood from various meridians to contribute to its physiological functions^[11]. Therefore, any organ damage or imbalance in the body will affect the uterus.

If the body is weak, the kidney qi is not sufficient, or sexual activity is excessive, or long-term illness consumes qi and blood, or diet is not appropriate, or the qi of the spleen and stomach is deficient, these

will lead to a lack of sources of essence. The normal function of the internal organs cannot be exerted, so essence cannot be transported to the uterus. Subsequently, the essence and blood are not fully replenished, the yin and blood are scarce. And the Chong and Ren meridians are obstructed, unable to store and absorb enough, making it impossible to nourish the uterus. The inability of the ovum to mature and the deficiency of the endometrium make it difficult to conceive. Or when the ovum matures but lacks qi and blood, it cannot be discharged and combine with male sperm. Or if the liver qi is excessive and the function of controlling dispersion is insufficient, the qi and blood push the ovum or fertilized ovum forward too quickly, reaching the uterine cavity before the endometrium is fully prepared. At this time, the endometrium is still thin and it is difficult for fertilized ova to implant. In the so-called barren land, grass and trees are difficult to grow, so it is difficult to conceive or conceive without growing.

4.2. Insufficient excretion and excess storage

Kidney essence can produce kidney qi, which can be divided into yin and yang. If qi deficiency cannot be restored for a long time, and if the qi of the latter is injured that of the former, it will inevitably lead to damage to the qi and affect the yang, causing a loss of yang energy in the kidneys^[12]. If the kidney yang is sufficient, it will be unable to stimulate the uterus to exert its ability to expel, making it difficult to expel the ovum. If there is emotional anxiety and depression, the liver is damaged, leading to poor circulation of qi, stagnation of meridians and uterine obstruction. The "Ji Yin Gang Mu · Qiu Zi Men" states: "Women's liver qi is prone to stagnation, and severe qi stagnation can lead to blood stasis, meridian obstruction, and ultimately infertility".

The qi of the spleen is weak, and the middle yang cannot be effectively transported and transformed into water and grain essence. Therefore, dampness is generated, and the movement of qi is stagnant. The pulse is blocked, and the essence of men and women cannot converge. Anger can damage the liver, causing effulgent liver fire. It can accumulate in the meridians, hinder the rise of clear qi, hinder blood circulation, and over time become stagnant blood. During menstruation, bad blood is difficult to flow out, postpartum lochia is not clean, blood stasis obstructs the veins, hinders the Xuehai and Ren meridians, and new blood cannot return to the veins. "The Classics of acupuncture and Moxibustion A and B" also said: "Women cannot have children, because bad blood cannot be discharged inside".

Obese women tend to prefer greasy foods, and their uncontrolled diet can harm their spleen and stomach. As a result, turbid substances are produced, which lose their regularity in transportation and become phlegm and fat. Harmful substances can clog the pulse and block the uterus, leading to menstrual disorders and eventually infertility. The "Danshi Xinfu" contains: "Excessive body fat can block the uterus". Factors such as liver depression and qi obstruction, cold stagnation and dampness obstruction, blood stasis and phlegm obstruction block the cellular meridians, causing the path of uterine discharge to be obstructed and hindering the union of sperm and ovum, resulting in infertility.

5. On the treatment of infertility from the perspective of "storage and excretion of the uterus"

The etiology of uterine diseases is disorders in the storage and excretion of the uterus, which is always treated based on differential diagnosis of deficiency and excess. Based on this method, we need to balance the Ying and Yang by reinforcing the deficiency and reducing the excess^[13].

5.1. Excretion without storage to make up for its deficiencies

5.1.1. Tonifying the kidney and filling in the essence

The kidney is responsible for reproduction, regulating the opening and closing of the uterus. Kidney essence is deficient, and the essence of reproduction is also insufficient. The function of the uterus is weak, so it cannot absorb energy to complete pregnancy^[14]. The treatment should be to nourish the kidney and nourish the essence. The kidney is the root of qi, the source of blood, and the generation of qi and blood are all related to it. According to "Introduction to Medicine," it is mentioned that "The qi, blood, yin and yang of men and women belong to the kidneys and the life-gate". It is used to nourish the kidney, fill the essence, and protect the Chong Ren, which can lead to conception. Professor Liu Jinxing uses Kidney Tonifying and Essence Nourishing Granules to promote the vitality of the kidneys, promote blood circulation, and activate the Chong Ren meridians. Improving the symptoms of renal sperm depletion in the body is beneficial for sperm uptake, pregnancy, and fetal health.

5.1.2. Warming the kidney and uterus

Insufficient kidney yang cannot warm the uterus, resulting in deficiency cold, ovum stagnation. Thus the treatment should be to warm the kidney and uterus. Women often feel a lack of warmth in their lower abdomen and cold hands and feet, which is due to the lack of fire and the deficiency and decline of Yang Qi. According to "Fu Qingzhu's Female Studies", it is recorded that "Cold womb prevents pregnancy... Therefore, it is necessary to nourish the heart and kidneys for treatment." Mr. Zhongpeng uses purple quartz to warm the kidneys and uterus as the main medicine, supplemented by cinnamon, Xianmao, Epimedium, Artemisia argyi, fennel, and deer antler cream to warm and nourish the lower organs, in order to enhance his ability to warm the kidneys and uterus. He also uses Angelica sinensis, Chuanxiong, white peony, Polygonum multiflorum, and jujube to nourish the liver and kidneys and regulate blood flow [15]. If the kidney qi is restored, the qi and blood are sufficient, the meridians are unobstructed, and the uterus is warmed, then pregnancy and childbirth will occur. In addition, Zi Shi Men Dong Wan, Yang Qi Shi Wan, and Wen Bao Yin are representative formulas for warming the kidneys and uterus in the treatment of infertility.

5.1.3. Benefiting Qi and Nourishing Blood

If there is insufficient qi and blood, the uterus will lose nourishment, so it cannot conceive. The treatment method should choose to nourish qi and blood. According to "Fu Qingzhu's Female Studies", "all gestational diseases are caused by the weakness of qi and blood, spleen and stomach". "The treatment of gestational diseases should focus on nourishing qi and blood". Fu believed that women belong to yin, with blood as the foundation and Chong Ren as the channel, which is the origin of infertility [16]. Profusion blood and vigor are the base of female physiological activities, and treatment should regulate qi and blood to ensure that the menstrual cycle flows on time. This is an important treatment for women to regulate their menstrual cycle and become pregnant. The commonly used formulas for treating blood deficiency infertility include Jiawei Siwu Tang, Zishen Yutai Wan, and Tiaojing Zhongyu Tang.

5.2. Store but do not drain, drain excess

5.2.1. The movement of qi to soothe and regulate the liver

Emotional issues can hinder the smooth flow of liver qi, making it difficult to communicate between Chong and Ren, hindering the reproductive tract, and hindering the combination of sperm and ovum. Women are naturally prone to stubbornness and sadness, which can lead to stagnation in the flow of qi and poor blood circulation over time. "The Secret Biography of Women's Health in Zhulin Temple" says: "Women are excessively depressed... their blood and energy are being depleted day by day, causing blockage of meridians gradually". The treatment mainly focuses on soothing the liver and regulating qi, with the reuse of breast promoting drugs. The principle is to pass through the breast to eliminate breast swelling, and pass through the Xuehai to clear the meridians and promote blood circulation. The upper and lower channels are connected simultaneously, which can help with pregnancy [17]. Medications such as Angelica sinensis, Rehmannia glutinosa, Paeonia lactiflora, and Fushen wood can also be used to soothe the liver, replenish blood, and soothe the heart. Especially, Xiangfu is an essential medicine for soothing the liver, relieving depression, and regulating menstruation in gynecology. Commonly used formulas include Kaiyu Zhongyu Tang, Hehuan Wan, Chaihu Shugan San and so on.

5.2.2. Blood-activating and Stasis-eliminating

Blood stasis blocks the veins, two branches are blocked, and the essence of men and women cannot converge, making it difficult to conceive. Blood that deviates from the meridians cannot be discharged, and new blood cannot return to the meridians. It can cause blood stasis in the pelvic cavity, stagnant in the uterus, leading to dysfunction of Chongren function, which can lead to kidney deficiency over time and inability to seed [18]. "The Thousand Golden Wings Formula" records that "Women who have not been able to conceive for twenty to thirty years must have blood stasis in their uterus, and they will mainly use Dangbao Tang". It is known that the accumulation of blood stasis in the uterus is also the main cause of primary infertility in patients. Dang Bao Tang contains ingredients such as rhubarb, sodium nitrate, leeches, flies, peach stones, etc. that promote blood circulation and break through blood stasis. The accumulation of blood stasis and the pathway for restoring the ovum are indeed effective remedies for treating infertility caused by blood stasis. In addition, Shaofu Zhuyu Tang and Wenjing Tang are equally effective remedies for treating infertility caused by cold coagulation and blood stasis.

5.2.3. Expectorant and dehumidifying

Phlegm dampness hinders the passage of the uterus, leading to impaired function in storing essence

and expelling dross. "The Danxi Heart Technique" states: "If an obese woman has excessive appetite, improper diet, irregular menstruation, and is unable to conceive, it is all due to phlegm and dampness blocking the uterus. The treatment should be based on drying dampness and resolving phlegm, and prescription such as Dao Tan Tang should be selected". It is known that people who enjoy eating greasy, salty foods can easily produce phlegm dampness, leading to uterine obstruction. The spleen is mainly responsible for the transportation and transformation of water and grain essence. It is the source of Qi and blood biochemistry, and sufficient Qi and blood are the important basis for menstrual production and energy absorption to form pregnancy^[19]. Spleen and stomach weakness not only results in a lack of energy and blood biochemical sources, but also generates phlegm and dampness, hindering the body's qi circulation. If this vicious cycle continues, it will result in the uterus having no source of nourishment. Therefore, the method of strengthening the spleen should be adopted to help the spleen move and transform the pathogenic factors of phlegm and dampness. For treatment, it is recommended to use products such as Tiannanxing, Cangzhu, and Banxia to dispel dampness and phlegm, in order to clear the tri-jiao.

6. Summary

Infertility is a common disease among modern women, which brings profound mental and physical pressure to both men and women, especially women. Various internal and external factors can affect the normal physiological function of the uterus, making it difficult for women to conceive. In the clinical treatment of infertility in traditional Chinese medicine, in addition to correcting congenital physiological defects as the main treatment, traditional Chinese medicine often draws on the experience of ancient doctors in syndrome differentiation^[20]. Considering various factors that affect the normal physiology of the uterus, we aim to improve the overall condition of the body. During treatment, we focus on restoring the storage and excretion functions of the uterus, coordinating internal and external factors, and treating both physically and psychologically to achieve the goal of assisting in pregnancy.

References

- [1] Ding Yuanquan, Liu Shuquan, Yuan Jialin. *Ancient and Modern Examination of Female Infertility*[J]. *Shaanxi Traditional Chinese Medicine*, 2004(11):1052.
- [2] Deng Linwen, Huang Wenfeng. *On Zang Diarrhea of the Compartment and the Tide of Menstruation* [J]. *New Chinese Medicine*, 2020, 52(12):218-219.
- [3] Ma Dazheng. *A brief discussion on the hiding and diarrhea of the five viscera*[J]. *Jilin Chinese Medicine*, 1984(04):9.
- [4] Luo Songping, Xu Limian, Deng Gaopi. *Introduction to the medical cases of famous Chinese gynecologists*. Beijing: People's Health Publishing House, 2007:5.
- [5] Jiang Songping, Lin Xia, MA Dazheng. *Ma Dazheng's experience in the treatment of menstrual disorders by choosing meridian formulae with the characteristics of viscera zang diarrhea*[J]. *Chinese Journal of Traditional Chinese Medicine*, 2017, 32(02):631-634.
- [6] Shi Yusi, Huang Yuxiao. *Prof. Cai Lianxiang's experience in treating leakage by applying the theory of uterine zang diarrhea* [J]. *Journal of Chengdu University of Traditional Chinese Medicine*, 2022, 45(03):76-79.
- [7] He Fengjie, Cai Jing, Liu Xia. *Discussion on the disease of collapse and leakage in the uterus*[J]. *Journal of Shaanxi College of Traditional Chinese Medicine*, 2011, 34(05):5-6.
- [8] Huang Antelope, Gu Yuanye, Jiang Mei. *Exploration of the relationship between the theory of cytoplasmic uterus, cytoplasmic veins and cytoplasmic complexes and endometrial tolerance*[J]. *Jilin Zhongguo Zhongshi*, 2021, 41(07):854-857.
- [9] Jiang Ling. *Pathogenesis of uterine diarrhea and leakage*[J]. *Modern Medicine and Health*, 2008(15):2318-2319.
- [10] He Pei, Li Zhengwei, Xu Yijuan, et al. *A review of literature on the source and flow of female infertility in ancient China* [J]. *Yunnan Journal of Traditional Chinese Medicine*, 2017, 38(05):9-11.
- [11] Wang Yaoting. *A preliminary study of the uterus, cytoplasmic veins and cytoplasmic complexes* [J]. *Jilin Zhongguo Zhongguo*, 1984, (02):9-11.
- [12] Feng Jianhua. *Introduction to the experience of Chinese medicine in treating infertility* [J]. *Chinese Medical Science*, 2022, 12(09):98-102+130.
- [13] Liu Weiwei. *An overview of ancient Chinese medical literature on infertility and treatment research in the last five years* [D]. *Shandong University of Traditional Chinese Medicine*, 2012.
- [14] Zheng Wei, Zhang Fang, Zhang Ruoqian, et al. *Efficacy of tonifying kidney and nourishing essence*

- granules on cyclic preconditioning in infertile patients with diminished ovarian reserve function*[J]. *Journal of practical medicine*, 2019, 35(22):3540-3544.
- [15] Zhong Peng, Zhong Weichen. *Treatment of uterine dysplasia and infertility by warming kidney and uterus* [J]. *Shandong Journal of Traditional Chinese Medicine*, 1998(05):25-26.
- [16] Cao Jian. *Introduction to the treatment of infertility by Qing master* [J]. *Journal of Changchun University of Traditional Chinese Medicine*, 2007(01):8-9.
- [17] Tian Chunying, Zhang Dianlong, Zhang Qianhe, et al. *86 cases of tubal obstruction infertility treated with Shu Liver and Qi Method*[J]. *Journal of Changchun College of Traditional Chinese Medicine*, 1997(02):35.
- [18] Huang Yanan, Pei Fangli, Zheng Congcong, et al. *Zeng Cheng's experience in treating endometriosis infertility by tonifying the kidney and activating blood and regulating the Zhou method*[J]. *Journal of Guangzhou University of Traditional Chinese Medicine*, 2020, 37(09):1793-1797.
- [19] Gao Shanfeng, Fang Qingxia, Huang Yuxiao, et al. *Experience of Cai Lianxiang in treating subclinical hypothyroidism and infertility using the method of tonifying the kidney and strengthening the spleen, regulating qi and resolving phlegm*[J]. *Journal of Traditional Chinese Medicine*, 2021, 62(01):19-22+26.
- [20] Xu Shuyi, Ye Qian, Ye Ping. *Ancient medical doctors' understanding of infertility*[J]. *Jilin Chinese Medicine*, 2009, 29(04):350-352.