

Current Status of Modern Clinical Research on The Combination of Acupuncture and Medicine in the Treatment of Endometriosis

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Abstract

Objective: To summarize the methods and theories of acupuncture, traditional Chinese medicine, and needle-drug combination in the treatment of endometriosis, with the aim of enhancing and improving the clinical protocols of needle-drug combination in endometriosis, which in turn can explore and develop more therapeutic ideas and methods in related aspects, thus facilitating the clinical implementation of needle-drug combination in the treatment of endometriosis. **METHODS:** We searched the literature of acupuncture, Chinese herbal medicine and needle-drug combination therapy for endometriosis in the past ten years through the Internet, summarized the relevant therapeutic methods and theories, listed their specific operation methods and efficiency, and provided new ideas for clinical treatment. **RESULTS:** Acupuncture, Chinese herbal medicine, and the combination of acupuncture and medicine were all effective in treating the four major pathologies of endometriosis. **CONCLUSION:** The use of acupuncture and medicine combination for the treatment of endometriosis is more comprehensive and more effective for the improvement of individual symptoms, which is more worthy of clinical promotion.

Keywords

Endometriosis; Needle-drug combination; Current status of clinical research.

1. INTRODUCTION

Endometriosis (EMs), or endometriosis for short, is a common female gynecological disorder caused by the presence of endometrial tissue with the ability to grow outside the endometrium and the myometrium of the uterine cavity, and is a persistent and active growth disorder.[1] It is a persistent and active disease. Under normal circumstances, endometrial tissue should grow in the uterine cavity, but because the uterine cavity is connected to the pelvic cavity through the fallopian tubes, it gives endometrial tissue a channel to enter the pelvic cavity and grow ectopically. The author conducted a summary study through multiple literature searches and readings, aiming to clinically provide new ideas for the combined treatment of endometriosis with acupuncture and medicine. It is summarized as follows.

2. CHINESE MEDICINE'S UNDERSTANDING OF INTERNAL HETEROGENEITY

2.1. Classical accounts of endogamy

Although the name "endometriosis" does not appear in ancient Chinese medical texts, there are similar descriptions to endometriosis, and according to its clinical manifestations, it is classified as "pain", "excessive menstruation", "infertility" and "obstruction" in Chinese medicine. According to their clinical manifestations, they are classified as "pain", "excessive menstrual flow", "infertility" and "obstruction" in Chinese medicine, and these four are also the

four major symptoms of endometriosis. The pain evidence is recorded as in the *Jing Yue Quan Shu*: "Abdominal pain during menstruation, the evidence has deficiency and reality." Excessive menstrual flow or excessive menstrual fluid is recorded as in the "Women's Political Guidelines": "Excessive menstrual fluid is deficiency heat, and qi deficiency is unable to take in blood." Infertility is recorded as in the *Treatise on the Origin of Diseases*: "The menstrual fluid is unfavorable for the absence of a child", and *zhengzheng* is recorded as in the *Treatise on the Bone and Space of Su Wen*: "The Ren Vessel is a disease that causes seven hernia in men and obstruction in women". [2] It can be seen that ancient physicians had some research on internal abnormalities.

2.2. Contemporary medical understanding of endomorphism

Contemporary medical practitioners generally believe that internal stagnation of blood stasis is the main pathogenesis of endometriosis, and blood stasis is the essence of the pathology of endometriosis. The etiology and pathogenesis of this disease are not exactly the same in different medical schools. From the viewpoint of the internal organs, Xia Guicheng [3] The cause of the disease is kidney deficiency and blood stasis, which is a deficiency of the root cause and the cause of the disease is blood stasis, and then the cause can be turned into the effect, resulting in a cycle of mutual cause and effect. [4] The cause of blood stasis is closely related to the dysfunction of the liver, spleen and kidney; Ms. Ma Xiaona [5] According to Ms. Ma Xiaona, this disease is based on the deficiency of the spleen and kidney, and the stagnation of cold, qi, phlegm, stagnant blood and other pathological products as the symptoms; Ms. You Zhaoling [67] Ms. You Zhaoling believes that endostosis is particularly close to the liver. Although different medical practitioners have different views on the understanding of the internal organs related to the lesions of endometriosis, they are no different from the three organs of liver, spleen and kidney. According to Mr. Chai Songyan, the pathogenesis of the disease is the attack of damp-heat and poisonous evil on the Qi, Blood and Sea of Qi, which leads to the appearance of the four major pathologies. In terms of the identification of Qi, Blood and fluid, Mr. Han Bing [8] Starting from Qi, Blood and Phlegm, he believes that the basic pathogenesis of this disease is the interlocking of Qi, Blood and Phlegm, resulting in the internal stagnation of Blood and the gradual formation of *zhengzheng*. Ms. Cong Huifang [9] Guided by the theory of "supporting evil", she suggests that the evil of "volatile cold" hidden in the body is the starting factor for the development of internal abnormalities. Because the Yin evil of volatile cold and the kidney of Shao Yin are in the same breath, and because the patient has a deficiency of the kidney, the evil of volatile cold is easily hidden in the kidney. This is the key to the pathogenesis of the disease. This is the key to the pathogenesis of the disease. "Long-term disease enters the ligaments", as the course of the disease continues to be prolonged, the degree of blood stasis blocking the veins and ligaments continues to increase, resulting in the deterioration of the disease.

3. ACUPUNCTURE FOR ENDOMORPHISM

3.1. Milli Needles

Liu Yuanyuan [10] et al. treated 35 patients with EMs pain evidence, taking Qihai, Guanyuan, Qi points, Daxue, and uterus, the latter three points were bilateral, and acupuncture with milli-needle, with an overall efficiency of 77.14%. Zeng Rui [11] et al. treated 40 patients with EMs pain evidence, selected Qi Hai, Guan Yuan, Zhong Ji, Tian Shu, Zi Gong, and San Yin Jiao acupuncture, with an overall effective rate of 77.5%. Observing the process of the above two studies, it can be found that Qihai, Guan Yuan, Sanyin Jiao and Zi Gong are the acupuncture points with a high rate of acupuncture in the treatment of internal heterogeneity. According to the identification and treatment of endometriosis, Tai Chong and Blood Sea were selected for Qi stagnation and blood stasis; Guan Yuan and Guilai for cold clotting and blood stasis; Qi Hai, Spleen Yu and Stomach Yu for Qi and Blood deficiency; and Tai Xi, Kidney Yu and Liver Yu for

Liver and Kidney deficiency. Acupuncture method: use 75% alcohol cotton ball to sterilize the hand and the acupuncture site routinely, and use the milli-needle to acupuncture the corresponding acupuncture point according to the dialectical evidence, and the method of flat tonic and flat diarrhea is appropriate. After obtaining the qi, the needle is left for 30-40 minutes, and the treatment is started 3-5 days before menstruation, for 7 consecutive days, and 3 menstrual cycles for 1 course of treatment.

3.2. Ventral needle

Abdominal acupuncture is a method of treating diseases by regulating the successive meridians through acupuncture points in the abdomen. Chen Lina[12] et al. used abdominal acupuncture to treat 70 patients with painful EMs, including 35 cases in the abdominal acupuncture treatment group, selected from the middle and lower abdomen, Qihai, Guangyuan and Zhongji, and treated for 3 consecutive menstrual cycles, with a total effective rate of 91.4%. Sun Qiaozhang[13] et al. divided 62 patients with dysmenorrhea into two groups using Bo's abdominal acupuncture plus infrared and Bo's abdominal acupuncture alone and treated them for 3 menstrual cycles, and the results showed a decrease in dysmenorrhea points both within and between groups before and after treatment in both groups ($P < 0.05$). In addition, Xiang Dongfang[14] et al. also found through clinical observation that the abdominal acupuncture identification point selection method could significantly reduce the expression level of serum CA125 in EMs patients compared with the abdominal acupuncture site selection method ($P < 0.05$), thus also proving that abdominal acupuncture therapy may have the effect of inhibiting endothelial activity and promoting atrophy of ectopic endothelium.

3.3. Fire Needle

Fire acupuncture is a special metal needle, and fire acupuncture is a method of treating diseases by burning the needle red and stabbing it rapidly into the corresponding parts of the body or acupuncture points to give certain heat stimulation, which has the effect of warming the meridians and channels, activating blood stasis and dispersing the symptoms. Most TCM scholars believe that the pathogenesis of EMs is based on internal stagnation of blood stasis, and the cause of the disease is related to cold, therefore, fire needling can conduct "fire heat" along the meridians to achieve the effect of using fire to help Yang, dispel stasis and eliminate symptoms. Liu Qiaoling[15] By using fire acupuncture to treat the painful symptoms of EMs, Liu Qiaoling et al. selected Zhongji and bilateral uterus points, Water channel, Guilai, Kidney Yu, and Sanyinjiao, and strengthened the effect of general acupuncture to activate blood circulation and remove blood stasis and disperse nodules by the warming effect of fire acupuncture, thus improving the symptoms of painful EMs. Teng Hui[16] The results of the study showed that fire acupuncture not only significantly relieved pain symptoms, controlled mass growth and improved quality of life, but also effectively reduced the expression level of serum CA125. Lingling Liu[17] On the other hand, fire acupuncture therapy was used to treat women with dysmenorrhea by taking the main acupuncture points of the bilateral secondary organs, Guan Yuan and 17 vertebrae. Clinical observation of 50 patients achieved pain relief after treatment, and the treatment results showed an efficiency of up to 94%. The treatment lasted for 3 months from one week before menstruation until the discontinuation of menstruation, and the results also fully confirmed the good intervention effect of fire acupuncture therapy on the growth of endometrial tissue.

3.4. Electroacupuncture

Electroacupuncture, as opposed to ordinary needling, is a method that enhances the stimulation effect of acupuncture points and improves clinical efficacy with the help of micro-current waves of human bioelectricity. Modern research has shown that the continuous stimulating effect of electroacupuncture can better regulate female endocrine and improve

pelvic microcirculation. The eight-shoe point is a key point for women with dysmenorrhea, and Huang Y[18] et al. used electro-acupuncture at the Eight Acupoints to treat EMs dysmenorrhea patients, and the results showed that the total effective rate reached 95.7%, which can effectively improve the quality of life of dysmenorrhea patients. Zhang Xinxin[19] et al. used Qihai, Guanyuan, Zhongji, Uterus, Sanyinjiao, and Hegu acupuncture points, mainly to move Qi and relieve pain, activate blood circulation and remove blood stasis as the treatment guideline, and enhanced the stimulating effect of acupuncture points through electroacupuncture therapy, the treatment results showed that compared with western medicine, the efficacy was obvious after electroacupuncture treatment, and the serum CA125 expression level decreased, and the difference was statistically significant ($P < 0.05$). In addition, no adverse effects were reported for the time being with electroacupuncture treatment, and the recurrence rate was relatively low within 1 year of follow-up.

3.5. Warm Acupuncture

In modern clinical practice, warm acupuncture is commonly used in diseases caused by stagnant blood and wind-damp paralysis, and Zeng Rui[20] The clinical results show that warm acupuncture can significantly relieve the clinical symptoms of dysmenorrhea, lumbago and menstrual disorders. Wu Qiuyan[21] The clinical application of warm acupuncture moxibustion method was used to treat dysmenorrhea in EMs, and the main acupuncture points were Guanyuan, Qihai, Sanyinjiao and Diji, and compared with western medicine ibuprofen, the treatment results showed that warm acupuncture moxibustion had significant effects on reducing pain, relieving symptoms and improving quality of life in patients with dysmenorrhea in EMs, and its immediate and long-term efficacy was better than NSAIDs with less side effects.

3.6. Moxibustion

As the ancient saying goes, "Moxibustion is appropriate when needles are not available", it can be seen that acupuncture and moxibustion complement each other, and moxibustion is mainly used to prevent and treat diseases through the warm stimulation and drug effects of moxa and drug ignition. Shen Yanjin[2224] The moxibustion can effectively improve the symptoms of dysmenorrhea in EMs, as well as achieve the effect of treating both symptoms and preventing the disease. The main components of thunder fire moxibustion are blood-stasis activating drugs, which are based on the theory of "blood stasis". The drugs penetrate into the lesion through the acupuncture points of the body to improve the local ectopic tissues and increase the local metabolism, so as to achieve the effects of warming the meridians and dispersing cold, activating blood circulation and eliminating stasis and eliminating symptoms.

3.7. Acupressure

Through the penetrating effect of drugs, acupuncture point application therapy penetrates drugs through meridians and acupoints to the lesion area to prevent and treat diseases. Hu Fang[26] et al. used the method of internal administration of traditional Chinese medicine combined with the application of Shen Que acupoint to strengthen the function of warming the meridians, dispersing cold, activating blood stasis and relieving pain, which can significantly reduce the pain level of EMs dysmenorrhea patients with cold clotting and blood stasis. An Xiuyun[27] et al. clinically used orange kernel pill acupuncture point compress to improve the clinical symptoms of qi stagnation and blood stasis type EMs through the drug's effect of moving qi and blood, softening hardness and dispersing nodules, resolving stasis and relieving pain. Qiu Cuihua and Meng Junling[28] et al. used blood-activating and blood-stasis drugs with internal and external treatment, and the results showed an overall efficiency of 95.3%. Jiang Bei[29] et al. concluded that pain is the main symptom of the disease, and blood stasis is the main pathogenesis of the disease, and the use of Chinese medicine collapse method can penetrate the

drugs into the pores through the skin to unblock the meridians, eliminate blood stasis and relieve pain

4. CHINESE HERBAL MEDICINE FOR THE TREATMENT OF ENDOMORPHISM

Due to the ectopic endometrium of periodic bleeding will form the accumulation of menstrual blood in the lower abdomen, blocking the rhythm and uterus. Stagnation of qi and blood, various pathological products or deficiency of qi and blood lead to pain if not passed or pain if not glorified and develop into dysmenorrhea; stagnation of qi and blood, cold and blood stasis, phlegm and blood stasis and kidney deficiency and blood stasis lead to internal stagnation of stagnant blood and over time stagnant blood becomes aggregated and develops into obstruction; kidney is the main reservoir of sperm and reproduction, if stagnation for a long time hurts kidney, damages kidney essence and kidney qi, and loss of nourishment of the ramus, together with the influence of other factors, it leads to inability to take in sperm and develops into infertility. To summarize the ideological approach of Chinese medicine in treating EMs is as follows.

4.1. Use as a communication

Through data mining the literature on the treatment of EMs with Chinese medicine, it was found that most of the drugs used in the treatment of EMs are blood-stasis activators.[30] Therefore, they are consistent with the main pathogenesis of the disease, which is the blockage of blood stasis in the ramus, the blood sea, the uterus, the uterus, the uterine veins, and the uterine ligaments, and the treatment method is to invigorate blood to dispel blood stasis, disperse nodules, and eliminate symptoms, which reflects the principle of using the blood as a means of circulation. Among these drugs, Radix Paeoniae, Radix et Rhizoma, Radix Angelicae Sinensis have the effect of activating blood stasis and relieving pain, which can significantly improve the painful symptoms of dysmenorrhea and pelvic pain presented by EMs; Curcuma longa, Peach kernel and Trigonellae can dispel blood stasis, disperse nodules and eliminate lumps, treating stasis of blood accumulation of lumps.

4.2. Complementary to the general

Chinese medicine treatment of this disease follows the guideline of "stopping when it is mostly decayed", always focusing on protecting the body's vital energy, stopping when it is sick, not just attacking, so as not to damage the vital energy.[31] The most frequently used deficiency tonics are Angelica sinensis, Glycyrrhiza glabra, Astragalus membranaceus and Cuscutae, which fully reflect the idea of activating the blood to dispel blood stasis without harming the righteousness, and the idea of combining tonicity with ventilation.

4.3. Combination of elimination and supplementation

In the Treatise on the Origin of the Diseases, it is recorded that the imbalance between cold and warmth and the Qi of the organs can easily lead to obstruction, revealing the pathological changes of cold coagulation and blood stasis, stasis and heat, and in the treatment, drugs can be used to warm the meridians and disperse cold, cool the blood and remove stasis.[30] .

In women, the liver is the innate essence, the liver collects blood and is the master of drainage, preferring to be organized and not depressed, using yang to store blood, regulate blood volume and drain qi. The liver blood is injected into the impulsive veins and is responsible for the regular storage and overflow of blood. If the liver loses its function, menstrual problems and lumps may occur. In the treatment of menstruation, we can use drugs that regulate liver qi to restore the liver's function of draining the blood, so that the blood will flow when the qi moves. The most frequently used qi-regulating herbs are aromatic herbs, neem, and ocimum sanctum. In the prescriptions for the treatment of endometriosis, sweet tonic drugs are often combined

with pungent and bitter drugs that regulate qi and activate blood, and clear heat and cool blood, reflecting the idea of dispelling evil without harming the righteous, and tonic without loving evil.

4.4. Temperature is the way to go

The results of medicinal property analysis showed that the most frequently used of the four gases were warm and flat, followed by slightly cold.[30] In the prescriptions for endometriosis, the most frequently used drugs for activating blood circulation and resolving blood stasis, and those for tonifying deficiency are mostly warm and flat, such as Yanhusuo, Curcuma longa, Angelica sinensis and Licorice, while Peach kernel and Sanleng are flat, and heat-clearing drugs such as Red peony and Mudanpi are slightly cold. All in all, there are more warm and flat drugs, because the blood is warm to move, and the warm and flat nature can dispel the cold evil, so that the blood vessels are smooth.

4.5. Emphasis on liver, spleen and kidney

In Chinese medicine, it is said that "the liver is the precursor of women", which shows that the physiological function of the liver is closely related to women's reproduction. On the one hand, the liver is the master of drainage and can regulate the ovulation and menstruation of women; on the other hand, the liver is the master of blood collection and is the source of menstrual blood production, participating in the regulation of menstrual cycle, period and menstrual volume. The spleen is the source of biochemistry, and the spleen is the master of transportation, with the function of regulating blood and the uterus. The Spleen is the source of Qi and Blood, and the Spleen is the source of Qi and Blood. In summary, from the viewpoint of the function of the internal organs in Chinese medicine, endometriosis is closely related to the liver, spleen and kidney. The secondary dysmenorrhea, infertility and excessive menstruation manifested by endometriosis can be treated by regulating the functions of the liver, spleen and kidney.

5. COMBINATION OF ACUPUNCTURE AND MEDICINE FOR THE TREATMENT OF ENDOMETRIOSIS

5.1. Advantages of needle-medicine combination

Acupuncture treatment of EMs is to play its role of activating blood circulation, removing blood stasis, warming Yang and relieving pain, which can quickly relieve the pain caused by EMs, regulate human endocrine function for a long time, improve local blood circulation, and effectively reduce bleeding caused by abnormal endometrial growth.[32] It can regulate the body's endocrine function, improve local blood circulation and effectively reduce bleeding caused by abnormal endometrial growth. Chinese medicine treatment for Ems can not only promote vasodilation and improve pelvic microcirculation, but also promote atrophy of ectopic endometrial tissue. The current combination of acupuncture and herbal medicine has a significant effect on improving the clinical efficacy of the disease and reducing the treatment period. Through literature research, it is found that the selection and prescription of Chinese medicine in the treatment of this disease is mainly based on activating blood circulation, removing blood stasis, dispersing nodes and eliminating symptoms, such as peach kernel, safflower, leech, Chuanxiong and sanqi, etc. With prescriptions such as Gui Zhi Fu Ling Wan and Tao Hong Si Wu Tang. He Aihua[33] The results showed that the combination of acupuncture and medication was statistically significant ($P < 0.05$). Gui Zhi Fu Ling Wan possesses the effect of eliminating symptoms and dispersing nodules. Feng Yu et al. used acupuncture combined with Gui Zhi Fu Ling Wan plus reduction to treat dysmenorrhea in EMs, and the clinical efficiency reached 79.49%. Wu Juxing[34] The results showed that the combination of Chinese medicine enema and acupuncture could effectively reduce the occurrence of complications and

was significantly better than western medicine in relieving pain, and the difference was statistically significant ($P < 0.05$), with an effective rate of 86.67%. It is sufficient to prove that the combination of acupuncture and medicine can regulate the deficiency, warm the meridians, support the correct qi, and harmonize the internal organs, and achieve the effects of regulating qi and stagnation, warming the meridians and dispersing cold, clearing heat and removing dampness, and replenishing qi and nourishing blood, giving full play to the advantages of Chinese medicine in the treatment of EMs, and its efficacy is better than that of simple Chinese medicine treatment or simple acupuncture treatment[35].

5.2. Problems of needle-drug combination

At present, there are still many problems with the combination of needle and medicine in the treatment of EMs. (1) Clinical research indexes are not refined enough, most of the observations are mainly on clinical efficacy, and there is a lack of planning in identification and typing, inclusion criteria, and efficacy assessment, resulting in the comparability of relevant experiments and the credibility of experimental conclusions being affected to a certain extent. (2) Research related to the mechanism of action of acupuncture and Chinese herbal medicine in the treatment of endodermis is not deep enough, and animal experimental research on the combination of acupuncture and medicine in the treatment of endodermis is less. Therefore, it is difficult to promote the treatment method of combining acupuncture and medicine. (3) The treatment options for the combination of acupuncture and medicine for the treatment of endostosis are relatively selective, but at present there is no refined classification of these treatment options, and there is a lack of unified planning, which is not conducive to the formation of planning standards like guidelines, and it is not conducive to the worldwide promotion. (4) The selection of acupuncture points is arbitrary, a standardized and unified treatment plan and treatment ideas have not been formed, and the therapeutic efficacy also lacks comparability.

6. CONCLUSION

Endometriosis is a common disease in gynecology, and it is also one of the chronic and difficult diseases in gynecology, which can have a certain impact on women's quality of life. The causes of endometriosis have not yet been fully understood in Western medicine, and treatment mainly relies on hormone modulation therapy and surgical eradication of the lesion. However, due to the complex pathogenesis of the disease and the difficulty of healing, there are problems such as large side effects of drugs, heavy economic burden of patients and inevitable trauma caused by surgical treatment. With the development of Chinese medicine in recent years, Chinese medicine therapy has shown unique advantages in the treatment of endometriosis. The combination of acupuncture and medicine plays an important role. The combination of acupuncture and medicine plays an important role in relieving the pain caused by endometriosis and reducing the incidence of infertility and adverse complications through multiple routes of administration and treatment, which has a high clinical value. In this article, we hope that Chinese medicine can play a greater role in the treatment and prevention of endometriosis and have a broader development prospect, so as to promote the inheritance and development of Chinese medicine for the benefit of mankind.

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