

Research Progress of Acupuncture and Massage in the Treatment of Primary Dysmenorrhea of Cold Congealing Type

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Abstract

Primary dysmenorrhea is a common and frequently-occurring disease in gynecology. It usually occurs in adolescent girls and nulliparous young women. It is mainly manifested as pain in the lower abdomen or lumbosacral region. The symptoms such as cold hands and feet, severe pain, syncope, etc., but there is no organic disease in the reproductive organs, can seriously affect the daily life of patients. The author collected relevant literatures about acupuncture and massage in the treatment of primary dysmenorrhea of cold congealing type in the past five years through CNKI, VIP, Wanfang, PubMed and other databases, sorted and summarized them, and found that acupuncture and massage are effective in clinical treatment of cold congealing. It has unique advantages in primary dysmenorrhea type, with significant curative effect, low recurrence rate, no obvious toxic and side effects, high patient acceptance, and easy clinical promotion and use. The research progress is summarized as follows, which can provide reference for the clinical treatment and related research of primary dysmenorrhea of cold congealing type.

Keywords

Acupuncture and Massage, Primary Dysmenorrhea, Review

Primary dysmenorrhea (PD), also known as functional dysmenorrhea clinically, accounts for more than 90% of dysmenorrhea, is most common in adolescence and childbearing age, usually occurs during or before and after menstruation, and typically presents as lower abdominal pain and pain. Bulging feeling, and no organic lesions in the reproductive organs. The incidence rate in my country is 56.05%, which has been increasing year by year in recent years [1, 2], and the clinical cold congealing type is more common [3, 4]. Western medicine treatment of PD is often dominated by oral drugs, mainly including non-steroidal anti-inflammatory drugs, vitamin E, calcium channel blockers (CCB), contraceptives, etc., but these drugs are easy to cause liver and kidney damage and gastrointestinal tract, central Nervous system adverse reactions, and high recurrence rate [5, 6]. A large number of clinical studies have found that acupuncture and massage have a definite curative effect in the treatment of cold congealing PD, which can not only relieve pain and accompanying symptoms, but also effectively prevent recurrence, with good safety and no toxic side effects. In this paper, the clinical research on acupuncture and massage in the treatment of cold-coagulation type PD in the past five years is summarized as follows, to provide a reference for clinical selection of appropriate methods.

1. Acupuncture treatment

Acupuncture at different acupoints through syndrome differentiation and treatment, on the one hand, stimulates the meridian system, regulates meridian qi, regulates the function of zang-fu organs, on the other hand, regulates endocrine, improves blood rheology, relieves uterine spasm, and finally achieves the effect of pain relief. Luo Li et al. [7] found that acupuncture at Guanyuan acupoint could promote the temperature balance in the bilateral Sanyinjiao acupoint area in rats, and believed that acupuncture could regulate the imbalance of vasomotor substances in the body. Yang Jiamin et al. [8] compared the effects of acupuncture at Sanyinjiao and Guanyuan points on the degree of uterine contraction in rats with dysmenorrhea with cold blood coagulation and blood stasis. Its mechanism of action is to relieve the spasm of uterine smooth muscle in rats by regulating the level of opioid peptide receptors in uterine target organ tissues, and further play an analgesic effect of acupuncture. Dai Shunhua et al. [9] divided PD patients with cold blood stasis type into two groups. In the observation group, Guanyuan, Qihai, Zusanli, and Sanyinjiao were treated with Wentong acupuncture, and the bilateral Shuidao, Tianshu, Taichong and other points were applied. Routine acupuncture; the acupoint selection of the Pingbuping-reducing group was the same as that of the observation group. After 5 menstrual cycles of treatment, the research results showed that the total effective rate (87.1%) of the observation group using the warming acupuncture method was significantly better than that of the control group (66.7%) using the supplementing and reducing method ($P < 0.05$).

2. Moxibustion

Moxibustion is to ignite mugwort leaf products, use the heat of moxibustion fire to stimulate meridian points or specific parts of the human body, stimulate meridian qi activity, and then combine the comprehensive effects of mugwort leaves to adjust physiological functions, and play the role of warming meridians, dispelling cold, promoting blood circulation and removing blood stasis. Aiming at a rat model of dysmenorrhea with cold-damp stagnation type, Li Xinhua et al. [10] found that moxibustion at Shenque and Guanyuan had a significant effect on pain relief at different times, and the effect of pre-immediate moxibustion was better than that of pre-moxibustion and immediate moxibustion. Better, the mechanism may be through regulating the levels of prostaglandin $F2\alpha$ ($PGF2\alpha$), prostaglandin E2 ($PGE2$) and arginine vasopressin (AVP), and inhibiting the contraction of uterine smooth muscle to play analgesic effect. Liu Yinghua et al. [11] selected 147 patients with PD and treated them with moxibustion at Shenque and Guanyuan points for 20 minutes per acupoint every day, starting from 5 days before menstruation for 7 days in each menstrual cycle, and treating 3 menstrual cycles. The effective rate was 44.89%, which significantly improved the dysmenorrhea symptoms, pain degree and quality of life of PD patients with cold coagulation and blood stasis type, and was beneficial to reduce the usage rate of analgesics. Su Linrong [12] believed that the Renmai long snake moxibustion has the physiological function of the Ren channel on the one hand, and the therapeutic advantages of the long snake moxibustion on the other hand. The combined application can enhance the effects of warming the meridians, dispelling cold, promoting blood circulation and removing blood stasis. Wang Wenbin et al. [13] believed that warm acupuncture can encourage righteousness, regulate qi and blood, warm meridians and dispel cold, activate blood and dredging collaterals. Warm acupuncture and moxibustion are used to treat dysmenorrhea with cold blood stasis and blood stasis. The dual effects of acupuncture and moxibustion are used to further strengthen the warm circulation. Meridians, qi and blood circulation, dampness and cold, etc.

3. Acupoint Catgut Embedding Therapy

Acupoint catgut embedding is to implant catgut or other absorbable thread into acupoints through specific needles, and replace needles with threads, which can stimulate the acupoints lastingly and softly to balance yin and yang, reconcile qi and blood, and adjust the human body. The role of function has been commonly used in the treatment of PD in recent years [14, 15]. Chen Panbi et al. [16] showed that acupoint catgut embedding in Guanyuan, Cilio and Sanyinjiao has a significant effect on PD treatment. It can improve dysmenorrhea symptoms by reducing the content of $PGF2\alpha$ and increasing the content of $PGE2$ in dysmenorrhea rats. Tang Wenjing [17] believed that acupoint catgut embedding therapy for PD may reduce the levels of COX-2 protein and $PGF2\alpha$ by inhibiting the activation of NF- κ B.

4. Massage Therapy

Tuina therapy is mainly a treatment method that uses the hands of the human body to act on specific parts or acupoints on the body surface through manipulation. It is guided by the viscera and meridian theory of traditional Chinese medicine, combined with the anatomy and pathological diagnosis of modern medicine, to achieve the pur-

pose of disease prevention and treatment. Studies have shown that [18] the analgesic effect of massage manipulation is by inhibiting the expression of NR2B protein in the spinal cord, thereby down-regulating the central sensitization effect of the dorsal horn of the spinal cord. Pu Linqian et al. [19] used the Shenque acupoint as the center to cultivate vitality by using the vibrating technique to make Chongren qi and blood sufficient, and the blood vessels to be unblocked, thereby improving the pain in the lower abdomen. Zhang Bohe [20] used the massage manipulations of regulating Chong-Ren and zang-fu organs to treat dysmenorrhea with cold blood stasis and blood stasis, and the total effective rate was 84%. Using a relatively gentle massage method on the abdomen can achieve the effect of reconciling qi and blood, smoothing the meridians, and eliminating blood stasis; there is also a method of lifting, twisting, and rubbing the two meridians of the abdomen, which is the most direct in female cells. The role of the palace can make the Qi and blood smooth. On the bladder meridian on the back, using manipulations such as kneading, straightening, rubbing, and holding, not only relaxes the muscles of the lower back, but also stimulates the back-shu points to warm the meridians and dispel cold, regulate the internal organs, and make the meridians unblocked. , The effect of qi and blood reconciliation, relieve dysmenorrhea.

5. Acupoint application method

Acupoint sticking belongs to the category of external treatment methods of traditional Chinese medicine. Plasters can be used, or according to the disease, the traditional Chinese medicine related to the treatment of the disease is ground into powder, and the powder is mixed into a paste with ginger juice, honey or other liquids and applied dialectically. Acupuncture points or affected areas, and then stimulate the local area, so that the medicinal power can play a role in the acupoints, and then a therapy for the treatment of diseases. Studies have shown that [21] acupoint sticking can improve drug availability, maintain a constant blood drug concentration without stimulating the gastrointestinal tract, reduce drug toxicity, and have high safety. Qi Rong [22] used the acupoint sticking method of *Evodia japonica* powder and ginger juice. The cold-dissipating and analgesic effects of *Evodia japonica* can penetrate and absorb through the skin on the acupoints, stimulate the acupoints, and the medicinal effect and the acupoint effects work together, so that the effect of externally applied drugs can pass through the acupoints. The fur stimulates the meridians and acupuncture points to play a therapeutic role, so that the zang-fu organs can be reconciled and dysmenorrhea can be relieved. Li Chenhui [23] used Aifu Nuan Gong stick acupoint sticking therapy, the drug composition was 11 herbs such as *Rehmannia glutinosa*, cinnamon, *Evodia* and so on. It can effectively reduce the level of pelvic inflammation in patients and achieve the effect of relieving abdominal pain.

6. Auricular therapy

Auricular point therapy is a method of preventing and treating diseases by using Wangbuliuxing seeds or pressing acupuncture on the corresponding acupuncture points of the auricle, and intermittently stimulating and pressing them. Lu Chunxia [24] treated 90 patients with PD with auricular point therapy and divided them into auricular point pressing group, auricular point sticking group and placebo acupuncture group. In terms of acupoint selection, the auricular points of the viscera related to dysmenorrhea and the auricular points related to the regulation of hormone levels were selected. The placebo acupuncture group used pressing acupuncture after removing the needle tip. The auricular point sticking group (80.0%), while the placebo acupuncture group only reached 63.3%. There is a significant difference between the first two groups and the placebo group. It is believed that both auricular point pressing and auricular point sticking can effectively relieve the clinical symptoms of PD patients. The curative effect of pressing acupuncture is better, and the analysis believes that the difference in curative effect is related to the stimulation method and the amount of stimulation on the acupoints. Bai Dongyan et al. [25] selected the Yin three-needle plus qi sea point warming acupuncture method, combined with endocrine, Shenmen, uterus, kidney, subcortical, and sympathetic auricular point sticking, which can clear the meridians, warm and dispel cold pathogens. Long-term regulation of viscera and consolidation of curative effect, significant curative effect in the treatment of cold coagulation PD. Xie Hongying [26] used Shaofu Zhuyu Decoction to treat the control group in the treatment of PD with cold blood stasis and blood stasis. On the basis of this, the treatment group was combined with auricular point pressure pills. The result showed that the total effective rate (96.67%) in the treatment group was significantly higher than that in the control group. (76.67%), the difference was statistically significant ($P < 0.05$), the effect of Shaofu Zhuyu Decoction combined with ear point pressing pill was better. In conclusion, the combination of auricular point sticking and TCM internal therapy and external therapy in the treatment of primary dysmenorrhea is more effective.

7. Other Therapies

Zhang Di et al. [27] believed that acupoint catgut embedding combined with Fuyang cupping therapy on the one hand enhanced the stimulation of acupoints and reduced the frequency of treatment. Among them, Fuyang cupping therapy combined infrared, magnetic therapy, massage and warm moxibustion Efficacy, through the generated heat energy acting on the lower abdomen, the temperature of the uterine appendix is increased, and the excretion of cold blood stasis pathogenic qi in the body is promoted, which is more advantageous for the treatment of cold blood stasis type PD. Wang Shurong et al. [28] divided 80 PD patients with cold blood stasis type into two groups. The control group was treated with oral ibuprofen tablets, and the observation group was treated with Tongbian scraping combined with ibuprofen tablets, significantly better than the simple oral ibuprofen tablets, can significantly relieve pain symptoms, help to regulate menstruation, improve the patient's cold constitution (aversion to cold, cold limbs, pale complexion). In daily life, women with dysmenorrhea are often accompanied by many negative emotions (anxiety, irritability, etc.). Jiang Xintong [29] found that the five-element music therapy formed a resonance with the human body through sound waves, and combined with warm acupuncture and moxibustion to adjust the Qi machine, it can improve the patient's anxiety. Negative emotions, soothe the mind and body, and promote the improvement of dysmenorrhea.

8. Summary and Outlook

Western medicine believes that the pathogenesis of PD may be related to genetic factors, uterine factors, endocrine factors, psychological and spiritual factors [30]. The motherland medicine classifies PD as "abdominal pain during menstruation", and the name of this disease was first proposed in "Jingyue Quanshu". It is mentioned in "Qingzhunvke": "The cold and dampness of the husband is also an evil qi... The meridian water goes out through the two meridians, while the cold and dampness fills the two meridians and causes internal turmoil, and the two fight each other and cause pain." It is pointed out that dysmenorrhea is mostly caused by wind-cold-dampness. The evil stays in the lower abdomen, and if it is not clear, it will cause pain. This article summarizes the relevant literature on the treatment of cold-coagulation-type PD with acupuncture and massage in the past five years. It can be seen that acupuncture and massage treatment methods are various, but they mainly focus on warming meridians, clearing blood stasis and relieving pain, with significant curative effect and low recurrence rate. It has no toxic and side effects, is highly acceptable to patients, and is easy to popularize and use. The disadvantage is that the mechanism of action of acupuncture and massage needs to be further improved. Most of the clinical studies have a small sample size and lack multi-center and large-sample trials. Comparing the curative effects of various treatment methods can provide a basis for clinical treatment of PD, and screen out the best solution for the treatment of primary dysmenorrhea of cold congealing type.

References

- [1] Meng Wenling, Wang Ningning, Li Ping, et al. (2013). Epidemiological investigation and influencing factors of primary dysmenorrhea among female college students [J]. *Journal of Taishan Medical College*, 2013, 34(8): 579-583.
- [2] Tang Juan, Zhao Shenwu, Tang Shu, et al. (2013). Investigation and analysis of related factors of primary dysmenorrhea in female college students [J]. *Modern Medicine and Health*, 2013, 29(06): 857-858+861.
- [3] Cheng Fang, Cheng Hong, Cao Junhong, et al. (2013). Discussion on the distribution characteristics of TCM symptoms of primary dysmenorrhea [J]. *Journal of Traditional Chinese Medicine*, 2013, 28(8): 1194-1196.
- [4] Sun Yanming, Wang Ling, Wang Xueling, et al. (2012). Investigation on etiology and syndrome distribution of dysmenorrhea in 1800 female college students [J]. *Chinese Journal of Traditional Chinese Medicine*, 2012, 30(05): 1014-1016.
- [5] Petraglia, F., Parke, S., Serrani, M., et al. (2014). Estradiol valerate plus dienogest versus ethinylestradiol plus levonorgestrel for the treatment of primary dysmenorrhea [J]. *Int J Gynaecol Obstet*, 2014, 125(3): 270-274.
- [6] Wang Xiaoming. (2020). Clinical application and adverse reaction observation of non-steroidal anti-inflammatory drugs [J]. *China Rural Health*, 2020, 12(16): 46.
- [7] Luo Li, Ren Xiaoxuan, Guo Mengwei, et al. (2017). Effects of acupuncture at Guanyuan on the temperature and TXB₂/6-keto-PGF_{1α} ratio at Sanyinjiao acupoint in rats with dysmenorrhea with cold coagulation syndrome [J]. *Beijing University of Traditional Chinese Medicine Chinese Journal*, 2017, 40(01): 48-51.
- [8] Yang Jiamin, Shen Xiaoyu, Zhang Ling, et al. (2017). Effects of acupuncture at different points on the degree of uterine contraction and pain-related mechanisms in rats with dysmenorrhea with cold coagulation syndrome [J]. *Journal of Chinese Medicine*, 2017, 45(06): 73-76.
- [9] Dai Shunhua, Wu Bizhan. (2019). Clinical study of Wentong acupuncture in the treatment of primary dysmenorrhea with cold

- blood coagulation and blood stasis syndrome [J]. *World Latest Medical Information Digest*, 2019, 19(76): 5-6.
- [10] Li Xinhua, Sun Xiaoxue, Liang Yulei, et al. (2017). Effects of moxibustion at different times on the contents of prostaglandin and vasopressin in uterine tissue of rats with dysmenorrhea due to cold-damp stagnation (English) [J]. *Journal of Acupuncture and Tuina Science*, 2017, 15(04):250-256.
- [11] Liu Yinghua, Wang Xin. (2019). Clinical observation of moxibustion on 147 patients with primary dysmenorrhea with cold blood coagulation and blood stasis syndrome [J]. *World Journal of Integrated Traditional Chinese and Western Medicine*, 2019, 14(09): 1316-1318+1323.
- [12] Su Linrong, Zou Ting. (2020). Clinical observation of 30 cases of primary dysmenorrhea of cold blood coagulation stasis type treated by Renmai long snake moxibustion [J]. *Chinese Ethnic Folk Medicine*, 2020, 29(11): 100-102.
- [13] Wang Wenbin, Yang Bo, Wang Xiaoyan. (2019). Clinical observation of 30 cases of primary dysmenorrhea with cold blood coagulation and blood stasis treated with warm acupuncture and moxibustion [J]. *World Latest Medical Information Digest*, 2019, 19(76): 159-160.
- [14] Zhang Na, Zhang Lin, Qi Xiurong. (2019). An empirical case of clinical acupoint catgut embedding for primary pain [J]. *World Latest Medical Information Digest*, 2019, 19(32): 202-204.
- [15] Gao Jinghui, Yang Caide, Lv Suzhen. (2018). The clinical observation of Yang's 3+ therapy "Five Needles" acupoint catgut embedding in the treatment of primary dysmenorrhea [J]. *Modern Distance Education of Chinese Medicine*, 2018, 16(14): 132-134.
- [16] Chen Panbi, Chen Jing, Cui Jin, et al. (2018). Regulation and influence of catgut embedding method on neuro-endocrine-immune network in rats with primary dysmenorrhea [J]. *Acupuncture Research*, 2018, 43(01): 29-33.
- [17] Tang Wenjing, Wang Yiqin, Tang Biao. (2020). Effects of acupoint catgut embedding on prostaglandin-related factors and nuclear transcription factor κ B in uterine tissue of rats with primary dysmenorrhea [J]. *Acupuncture Research*, 2020, 45(07): 548-551+556.
- [18] Chen Shuijin, Jiang Yu, Chen Lechun, et al. (2019). Effects of massage manipulation on the expression of NMDAR2B in the dorsal root ganglia and spinal dorsal horn of rats with neuropathic pain [J]. *Bright Chinese Medicine*, 2019, 34(16): 2472-2474.
- [19] Pu Linqian, Li Wei. (2017). Research on the application of abdominal vibration therapy [J]. *Jilin Traditional Chinese Medicine*, 2017, 37(09): 966-968.
- [20] Zhang Bohe. (2019). Clinical observation of 25 cases of dysmenorrhea with cold blood clotting and blood stasis treated by Tong Tiao Chong Ren method [J]. *Wisdom Health*, 2019, 5(20): 112-113+129.
- [21] Du Hongyan, Guo Zhipeng, Dou Guizhen. (2018). Clinical study on the treatment of primary dysmenorrhea (cold blood stasis syndrome) by acupoint application of Wenjing Sanhan San [J]. *Chinese Medicine Emergency*, 2018, 27(01): 60-63.
- [22] Qi Rong. (2019). Observation on the efficacy of acupoint sticking with Evodia and Ginger juice in intervening dysmenorrhea due to cold blood coagulation and blood stasis [J]. *Journal of Practical Gynecology and Endocrinology*, 2019, 6(18): 81.
- [23] Li Chenhui, Yang Ting, Zhang Daibi, et al. (2022). Efficacy of Aifu Nuan Gong sticking acupoint sticking in the treatment of dysmenorrhea due to cold blood coagulation and blood stasis [J]. *Chinese Journal of Family Planning*, 2022, 30(01): 80-83.
- [24] Lu Chunxia, Deng Xuejiao, Chen Miao, et al. (2021). Treatment of primary dysmenorrhea by stimulating auricular points with different methods: a randomized controlled study [J]. *China Acupuncture*, 2021, 41(07): 737-741.
- [25] Bai Dongyan, Li Haishan, Feng Qiujuan, et al. (2019). Clinical study on the treatment of primary dysmenorrhea with cold condensate by warming acupuncture and auricular point [J]. *New Chinese Medicine*, 2019, 51(07): 199-202.
- [26] Xie Hongying, Zhang Zhaoying. (2020). Clinical study on the treatment of primary dysmenorrhea of cold blood coagulation stasis type with Shaofu Zhuyu Decoction combined with ear point pressing pills [J]. *Bright Traditional Chinese Medicine*, 2020, 35(15): 2322-2324.
- [27] Zhang Di. (2019). Curative effect observation of acupoint catgut embedding and Fuyang cup in the treatment of primary dysmenorrhea with cold blood coagulation and blood stasis syndrome [J]. *Shenzhen Journal of Integrated Traditional Chinese and Western Medicine*, 2019, 29(09): 51-53.
- [28] Wang Shurong, Duan Zhiyu, Diao Wangping, et al. (2021). Clinical effect of Tongbian scraping and scraping in the treatment of primary dysmenorrhea due to cold blood coagulation and blood stasis [J]. *China Medical Herald*, 2021, 18(26): 147-151.
- [29] Jiang Xintong, Zhang Yanjie, Sun Lili. (2020). Analysis of warm acupuncture combined with five elements music therapy in the treatment of dysmenorrhea with cold blood clotting and blood stasis [J]. *Chinese Folk Therapy*, 2020, 28(13): 11-12.
- [30] Oladosu, F. A., Tu, F. F., Hellman, K. M. (2018). Nonsteroidal antiinflammatory drug resistance in dysmenorrhea: epidemiology, causes, and treatment [J]. *Am J Obstet Gynecol*, 2018, 218(4): 390-400.