

Clinical Experience in Treating Primary Dysmenorrhea with the Liver-Brain-Tongue-Modulation Acupuncture Method

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Abstract: The incidence of dysmenorrhoea has been rising gradually in recent years, causing great disturbance to the lives of some women, and it is important to alleviate menstrual pain for patients. Professor Guo Xinrong summarized many years of experience and pioneered the liver-brain acupuncture method. Based on the relationship between liver, brain and dysmenorrhea, referring to the etiology of dysmenorrhea in traditional Chinese medicine and modern medicine, Professor Guo Xinrong innovatively selected the acupoints of the liver channel of foot syncope and combined with the acupoints of the head to treat dysmenorrhea. The treatment is based on the combination of Chinese and Western treatment methods, from the regulation of qi and blood, endocrine system regulation and spiritual regulation. This treatment plan is effective, double-line regulation, and provides a new idea of selecting acupoints for the treatment of female reproductive diseases, which is worthy of promotion and application in the clinic.

1. Introduction

Primary dysmenorrhea refers to dysmenorrhea without organic lesions of the reproductive organs, which mainly manifests itself as pain and swelling in the lower abdomen before or during menstruation, accompanied by other discomforts such as dizziness, headache, diarrhea or lumbago, and in severe cases, even vomiting, fainting, and blanching. According to epidemiological surveys, 16% to 91% of women have a history of dysmenorrhea, of which 2% to 29% of women have severe dysmenorrhea [1]. The percentage of women with severe dysmenorrhea is 2% to 29%. In recent years, due to people's poor lifestyle, dietary habits and mental stress, the number of dysmenorrhea is on the rise. Dysmenorrhea not only affects women's normal life and work, but also affects women's ability to conceive to a certain extent. At present, the most commonly used methods to relieve dysmenorrhea are bed rest, localized hot compresses, drinking ginger water [2]. The most common methods to relieve dysmenorrhea are bed rest, local hot compresses, and drinking ginger water to temporarily relieve the pain. Western medicine treatment of dysmenorrhea is to take non-steroidal anti-inflammatory drugs such as ibuprofen, etc., although it has a good paroxysmal effect, but the effect of a short period of time, side effects are numerous [3]. The side effects are numerous. All of

the above methods have the disadvantages of short curative effect and easy recurrence. Acupuncture has obvious advantages in the treatment of primary dysmenorrhea, with significant efficacy and high safety, which is easy to be accepted and promoted by patients.

Prof. Guo Xinrong (hereinafter referred to as Prof. Guo) is a professor of Shaanxi University of Traditional Chinese Medicine, a master's tutor, and the head of Guo's Acupuncture and Moxibustion Academic School in Shaanxi Province. He has been engaged in acupuncture and moxibustion clinics, scientific research, and teaching for more than 20 years, and has familiarized himself with the classical texts and knows well about the principles of medicine. Prof. Guo Xinrong insists on both inheritance and innovation, and on the basis of the school's application of "Tongzhong Acupuncture" for the treatment of mammary hyperplasia and the remarkable therapeutic effect, he further develops it into Liver and Brain Tongzhong Acupuncture and it is very effective in the treatment of primary dysmenorrhea. The author is honored to learn from the teacher, and now introduces his experience of treating dysmenorrhea with "Liver-Brain-Tong-Zhong" needle method as follows.

2. Professor Kwok's understanding of primary dysmenorrhea

Primary dysmenorrhea has a wide range of causes and complex mechanisms. According to Prof. Guo Chengjie (hereinafter referred to as Guo Lao), a master of national medicine, dysmenorrhea is caused by the deposition of cold in the body, which in turn injures the yang energy of the heart and kidneys, and the uterus loses its warmth, resulting in the imbalance of the Chong Ren and Ren veins [4]. The result is a loss of warmth in the uterus and an imbalance in the two channels. On this basis, Prof. Guo believes that menstrual fluid is produced by blood, and blood follows qi, so the gathering and dispersing of menstrual fluid depends on qi. During menstruation, if the qi and blood are abundant and calm, the blood can go from full to overflowing, and the menstrual fluid can be discharged unhindered, then the menstruation will be painless. If qi is weak and blood is weak, so that the uterus is not moistened or qi stagnation and blood stasis, so that the operation of qi and blood in the uterus is not smooth, can lead to the obstruction of the operation of the uterus and menstrual blood, so that the "not glory is painful" or "do not pass through and pain". To sum up, Prof. Guo summarized the pathogenesis of dysmenorrhea as a disorder of qi and blood, and a failure of Chong Ren.

According to Prof. Guo, dysmenorrhea caused by imbalance of the regulatory axis of "Kidney-Tianki-Congren-Uterus" in Chinese medicine is similar to dysmenorrhea induced by endocrine disorders caused by imbalance of the hypothalamus-pituitary-ovary (HPO) axis in modern medicine, and there is a similarity between the two. The pathogenesis of dysmenorrhea is mainly based on the prostate gland. The pathogenesis of dysmenorrhea is mainly due to the imbalance of prostaglandins, oxytocin, estrogen, and vasopressin, which leads to the increase of uterine smooth muscle tension, ischemia and hypoxia of uterine myometrium, and the accumulation of local acid metabolites, thus leading to pain, and it belongs to the common endocrine diseases of reproduction [5-6]. Based on the endocrine regulation effect of acupuncture described in modern medicine, Prof. Guo listed endocrine adjustment and restoration of the function of the disordered reproductive axis as one of the diagnosis and treatment ideas.

In response to the emotional factors, clinicians usually deal with the symptoms, but Professor Guo Xinrong in many years of clinical work, due to changes in the social environment, women are faced with the increasing pressure of school, work, interpersonal relationships, emotional factors have become one of the main reasons for the onset of primary dysmenorrhea. Women's seven feelings are not harmonious, easy to cause qi reverse liver injury, liver qi excretion is not as stagnant. Fu Shi explained in *Women's Studies*: "thinning is smooth, depression is not Yang, the

desire to act but the liver should not respond, suppressing qi and pain" [7]. The pain will be born. A lot of studies in modern medicine have confirmed that negative emotions such as depression and anxiety can cause endocrine disorders or lower the pain threshold, thus triggering dysmenorrhea [8-9]. The following are some of the reasons why dysmenorrhea can be triggered

3. Liver-Brain Tuning Acupuncture

In treating women's menstrual disorders, Guo mostly focuses on the liver. From the viewpoint of the liver's function, the liver is the main reservoir of blood and the division of excretion, with blood as the body and qi as the use, the interaction between the two results in the normal onset of menstruation; from the viewpoint of the liver's physiological characteristics, the liver's body is yin and the liver's body is yang, and it is crucial to promote the cyclical transformation of yin-yang rhythms of the female reproduction, and ensures that the ovum will be discharged on schedule, which will be carried out throughout the entire menstruation period [10]. From the point of view of the liver meridian circulation, it circles the yin organs and the lesser abdomen, and is closely related to the uterus. Therefore, in the treatment of dysmenorrhea, Guo advocated the selection of acupoints of the syncopal liver meridian to harmonize the uterus with qi and blood [11]. Prof. Guo summarized Guo Lao's thoughts as well as his own ideas on dysmenorrhea. Prof. Guo summarized Guo Lao's thoughts and clinical practice, although the causes of dysmenorrhea are many, but the onset of the disease is always attributed to the disorders of the two channels of the Chong Ren, the normal physiological function of the Chong Ren in order to maintain the normal endocrine activities of women's reproduction, and the two channels of the Chong Ren start from the perineum, holding the umbilicus upward, which is subordinate to the liver, and a number of medical practitioners have also put forward the theory of the "Liver is the master of the Chong Ren," and therefore Prof. Guo Therefore, Prof. Guo believes that regulating the Chong Ren focuses on regulating the liver. Modern medical research has found that the liver meridian passes through the thigh adductor muscle at the pubic bone attachment, which can cause dysmenorrhea and menstrual cramps under the effect of hormones [12]. Therefore, this disease should be treated from the liver theory.

In the treatment of female reproductive diseases, the national medical master professor Xia Guicheng put forward the theory of brain kidney uterus reproductive axis. He believes that the brain is the Lord of God, controlling the functions of the viscera and meridians of the human body, the uterus is the main reproductive organ of women, and the brain plays the role of controlling the female decidua, uterine menstruation, and reproductive functions. This is consistent with the modern medical theory that the HPO axis regulates women's reproductive function through the regulation of hormones [13-14]. The brain is the main reproductive organ of women.

The imbalance of HPO axis, resulting in hormonal disorders such as follicle stimulating hormone and luteinizing hormone, is an important cause of dysmenorrhea. Prof. Guo follows the idea of "Zhongzhong and Xi" and believes that the brain is the supreme leader in regulating female reproductive function. In treating dysmenorrhea by acupuncture, he takes into account the research of modern medicine on the mechanism of hypothalamus and pituitary regulating endocrine secretion, which leads to the development of dysmenorrhea, and innovates by selecting the head acupuncture point as the main acupuncture point to regulate the disordered HPO axis, improve endocrine secretion, and regulate the hormone level of the body to normal. It can improve endocrine secretion, regulate the hormone level of the body, and restore the reproductive function to normal.

Based on the above understanding, Prof. Guo has created the Liver-Brain Acupuncture Method for primary dysmenorrhea. Based on the theoretical foundation of "the liver is the innate part of a woman", this acupuncture method was created to regulate the endocrine system and Chongren qi and blood through acupuncture by understanding the brain-kidney-uterus reproductive axis, which

corresponds to the regulation of menstruation by the HPO axis. In the treatment, the patient's acupoints of the Foot Syncopal Liver Meridian were selected: Taichong (double), Xiangmen (double), Xingma (double), Dadun (double), which were combined with acupoints located on the head, such as Baihui, Shishencong, Genital Area, and Touwei (double), and then added with key acupoints of dysmenorrhea that are commonly used as effective pain relievers: Jiusong (double), Sanyinjiao (double), Guanyuan, and Uterus (double). Treatment begins 3-4d before the appearance of menstruation, this period is the stage of egg maturation and discharge. Yin and Yang, qi and blood changes more strongly, the liver and brain adjustment needle method can regulate Chongren qi and blood. In order to promote heavy Yin and Yang, the mature egg provides a material basis for smooth discharge to create favorable conditions for early prevention of menstrual pain and treatment for 7 consecutive days. The professor emphasized the importance of liver and brain acupuncture and symptomatic treatment, and achieved good clinical results.

4. Characteristics of Liver-Brain Tuning Acupuncture

4.1 Regulating Chong Ren and regulating Qi and Blood

When treating dysmenorrhea, the Liver-Brain Tong-Tong-Tuning Acupuncture Method can have the effect of harmonizing qi and blood and regulating the Chong-Ren Vessel. The Ren vein can regulate the qi and blood of the yin meridians, influence the sea of blood, and can nurture the twins, and the liver meridians meet in the bones of the curvature. Chong vein is the twelve meridians of qi and blood convergence, also known as "blood room", and with the foot syncopal liver meridian in the abdomen connected. The liver is the main blood collector and is the sea of blood, which is the basis of women's menstrual blood. If the liver's function of collecting blood is normal, and liver blood is injected into the sea of blood, the Chong Wei will be full of blood. The Liver is the master of excretion and regulates qi, therefore, if Liver Qi is well organized, then qi is well regulated and the Ren Vessel is open, the Tai Chong Vessel is full, and menstruation occurs in a timely manner. Liver qi rises and its qi function can work together with the spleen to converge qi and blood in the Chong Chakra, so that the qi and blood of the twelve meridians and the Chong-Ren two veins are nourished, nourished and run smoothly. Taichong as the original point of the foot syncopal liver meridian, for the meridian grand conflict place, the main treatment of diseases of the five viscera and six bowels, to regulate the qi and blood, benefit the liver for the use of deficiency, so acupuncture can play a good effect of tonifying qi and regulating the blood and pain relief. Xingma point for the liver meridian "Xing point", in order to dredge the liver gas, diarrhea of the liver for the use of the liver gas through the blood smooth menstrual cramps in addition to. The two points are compatible, not only can be adjusted to cure the dysmenorrhea caused by qi and blood not glorification, but also can be diarrhea to cure the dysmenorrhea caused by qi and blood blockage. Therefore, acupuncture acupoints of the liver meridian can play a three-pronged role, one is to replenish qi and blood, unclogging the qi; the second is to promote qi and blood, eliminating blood stasis; the third is to regulate and smooth the Chong Ren, menstruation and pain.

The head of the meridians circulation through the place, qi, blood, body fluid convergence, flushing any two uterine vessels, kidneys, and head. So the application of the head acupoint regulation chong Ren qi and blood impassability is crucial. Acupuncture stimulates the acupoints of Chong and Ren, dredges the meridians, and adjusts the qi and blood of the whole body's organs and internal organs. "Head acupuncture therapy" mentioned: the reproductive belt is located in the front and back of the middle line parallel to the frontal Angle up 2 cm straight line, acupuncture points can help promote blood circulation and remove blood stasis, pain relief. Acupuncture can activate blood circulation and remove blood stasis, regulate qi and relieve pain [15]. The acupuncture can activate blood circulation, remove blood stasis, regulate qi and relieve pain. Modern research has

shown that needling the genital area causes nerve impulses and leads to the main scalp frontal sensory trigeminal nerve sensory nucleus, the sensory nucleus has a reflexive connection with the nerve nucleus in charge of visceral sensation and movement, which in turn dominates the activity of the genital area organs and improves the function of the HPO axis, which corresponds to the regulation of the kidney-Tiankai-Congren-Cytosine axis in order to regulate the Congren two chakras [16-17]. The Hundred Meetings point is located at the top of the human body. Baihui point is located at the top of the human body, the upper head of the foot syncopal liver meridian, and the dao chi intersects here, and the dao chi is connected with the Chongren, so acupuncture can be adjusted to the liver meridian and the dao chi's qi, and play the role of activating the blood and regulating menstruation, and filling up the Chongren's qi and blood, so as to promote the smooth discharge of menstrual fluid. Foot yangming meridian, foot shaoyang meridian and Yang Wei vein meeting point for the head Wei point, belongs to the yangming vein, more blood and more gas for women's menstruation to provide a material basis, and it is located in the head of the genital area, acupuncture can regulate the women's menstruation-related diseases.

In addition, anatomy has revealed that the distribution of nerve segments in both Guanyuan and Sanyinjiao points is similar or identical to that of the uterus, providing a neural basis for the regulation of uterine functions [18]. Guanyuan is an acupoint of the Ren vein located in the lower abdomen. Guanyuan is an acupoint of the Ren vein located in the lower abdomen, which is the meeting point of the three yin meridians and the Ren vein. The Ren vein is the sea of the yin vein, which can be used for the operation of the woman's menstruation, and it is mentioned in the book "Su Wen - Lifting Pain" that "the Chong vein starts from Guanyuan, and passes through to the uterus," therefore, acupuncture on Guanyuan has the effect of adjusting the Chong and Ren, and supplementing the vital essence and blood. Sanyinjiao is the point where the liver, spleen and kidney meridians meet, and it is a commonly used point for gynecological diseases, which has the effect of regulating Chongren, regulating qi and blood, and regulating menstruation and relieving pain. The combination of the two points can harmonize qi and blood, and regulate Chong Ren.

4.2 Endocrine regulation for pain relief

Research on the mechanism of acupuncture in the treatment of primary dysmenorrhea has revealed that acupuncture on the head acupoints can activate the function of the pituitary gland and the hypothalamus, thus exerting its regulatory function on the endocrine system and the endogenous analgesic system, and the two work together to treat dysmenorrhea. Abnormalities in the HPO axis of the endocrine regulatory system are the key factors leading to endocrine disorders that cause dysmenorrhea in women. Acupuncture located in the head acupoints stimulates the nerve impulses of the cerebral cortex, which can significantly reduce the secretion of gonadotropin-releasing hormone at the level of hypothalamus regulation; inhibit the release and secretion of follicle stimulating hormone and luteinizing hormone at the level of the pituitary; and increase the level of expression of uterine progesterone receptor mRNA, estrogen receptor mRNA at the level of the ovary, which can stimulate progesterone to increase, and antagonize the production of prostaglandin and estradiol, thus reducing the smoothness of the uterus caused by hormonal influences. It can reduce the excessive spasmodic contraction of uterine smooth muscle caused by hormonal influence, increase uterine blood flow, and thus relieve pain [19-20]. In terms of pain relief, acupuncture on the head is used to relieve pain. In terms of pain relief, acupuncture on the head may activate the endogenous analgesic system, promote the release of opioid peptides, inhibit the transmission and perception of pain signals, and exert analgesic effects. Prof. Guo's acupuncture on the genital area of the head, Sishencong, and Touwei are all manifestations of adjusting the disordered HPO axis, which not only directly stimulate the hypothalamus and pituitary gland to improve the

corresponding reproductive hormones, thereby stimulating the target organs, but also directly affect the secretion of endorphins and indirectly affect the secretion of gonadotropins, thus regulating the female reproductive function as a whole, and relieving menstrual cramps [21]. It can also directly affect endorphin secretion and indirectly affect gonadotropin secretion, thus regulating female reproductive function and relieving dysmenorrhea.

As the foot-convulsive Yin Liver Meridian and the Directing Vessel merge with the brain at the top of the head, acupuncture on the acupoints of the Liver Meridian stimulates the overall regulation of the meridians to "diarrhoea its excess, replenish its deficiency, adjust yin and yang", corresponding to the adjustment of the imbalance of the HPO axis, so as to normalize the body's disordered endocrine system related to reproduction and alleviate the uterine ischemia and hypoxia state. In addition, it can also increase the pain tolerance threshold of the liver meridian circulation area, so that the pain sensation in the lower abdomen can be suppressed and the symptoms of dysmenorrhea can be improved. Taichong is similar in location to Xingmai, and Taichong is an acupoint of the liver meridian, with the main body emphasizing nodal pain, and according to Wang Caiqing [22]. According to Wang Caiqing's research, Taichong has a significant immediate pain-relieving effect in the treatment of dysmenorrhea, and the matching of Xingmai and Xingtong enhances the pain-relieving efficacy.

Coupled with acupuncture points commonly used in the treatment of dysmenorrhea, the pain-relieving effect is strengthened. The special effect point for treating dysmenorrhea, Jioso, whose afferent nerves to the uterus overlap at L2~S4, can soothe uterine smooth muscle spasm, improve microcirculation in the uterine area, promote enkephalin secretion, elevate the pain threshold, and quickly relieve dysmenorrhea after being subjected to acupuncture. Acupuncture of Sanyinjiao and Guanyuan can effectively reduce FSH and LH secretion, lower uterine E2 and P content, thus regulating the strength of uterine contraction and relieving vasospasm [23-24]. The uterus point is an extra-meridian point near the gonads, reflecting the rule of "where the acupuncture point is located, where the main treatment is located", which is basically the same as the nerve segment innervating the reproductive system, so acupuncture can benignly regulate the endocrine activity of the HPO axis, so as to achieve the purpose of treating dysmenorrhea [25]. The combination of these points is quick and effective. The combination of all points can relieve pain quickly and fundamentally.

4.3 Regulating the Spirit and Smoothing the Emotions (Yuan Shen - Xin Shen)

Prof. Guo believes that all pain occurs with the participation of God. "Su Wen - prick true to be too much theory" also pointed out that "acupuncture to, must first cure God", so very much emphasize the importance of regulating God in the treatment of dysmenorrhea, including the regulation of God and the regulation of the heart God. Yuan Shen mainly regulates the human body thinking and visceral function activities, the brain for the Yuan Shen of the House, acupuncture head acupoints for the regulation of God to play a role in the near cure, stimulate the brain master of the effect of God's bright, through the complementary deficient leakage of the real, promote the balance of yin and yang and women's cellular function in order to treat menstrual cramps. The heart and spirit are mainly responsible for regulating the spiritual consciousness of the human body. The brain is the birthplace of all spiritual emotions and the pivot of emotional changes. Modern research has shown that acupuncture on the head can directly stimulate the cerebral cortex to improve local blood circulation in the brain and stimulate cell activation, and also improve the glucose metabolism in the cingulate gyrus, caudate nucleus, frontal lobe and cerebellum to alleviate depression and anxiety and improve emotional disorders [26], corresponding to the regulation of mental consciousness in Chinese medicine. The selected acupoint, Baihui, is located in the Dudu

vein, which has the effect of regulating qi, relieving depression and regulating the mind through the Dugu, together with Si Shen Cong, the two synergistically play a role in regulating yin and yang, and tranquilizing the mind. Four Shen Cong in acupuncture needle tip from four to Baihui close to the intention to attract the four lax God gathered in the three Yang five will be the effect of the brain through the Duk Jing, can be attracted back to the source of God, Baihui point in the top of the top of the front, back, left, right, under the four angles of stimulation to stimulate the regulation of the effect of the hundred veins [27]. The Hundred Meetings point is stimulated from four angles at the top of the head, front and back, left and right, to stimulate its effect of regulating the hundred channels.

The acupoints of the Foot Syncopal Liver Meridian are also crucial in acupuncture for regulating the mind. On the one hand, a branch of the foot syncopal liver meridian on the forehead, and the dukedom will be in the top of the top, and liver blood, acupuncture liver meridian acupuncture points can make the liver blood upward, filling the brain orifices in order to nourish the spirit. On the other hand, the liver likes to regulate the smooth operation of the whole body's qi, blood and fluids, the function of excretion can be normal operation, the qi is smooth and organized, qi and blood harmonization, the gods can be self-safety, the patient's high-pitched irritability or depression, such as low and low abnormalities of emotion can be relieved. The selected acupoints, Dadun and Ximen, are the starting and ending points of the foot-convulsive yin liver meridian, which are more conducive to regulating the liver meridian's qi and restoring the body's emotional peace.

5. Medical Cases

Li Moumou, female, 23 years old, college student, unmarried, was admitted to our hospital on 3/20/2023. The patient was 13 years old when she had menarche, 5-7/30-32 days, menstrual abdominal pain has been more than 2 years, usually the first day of menstruation pain in the abdomen is severe, warmth is reduced, the volume of menstruation is medium, the color is dark and clots are mixed, often accompanied by pallor, cold and cold limbs, the tongue is purple and dark, the moss is thin and white, there are petechiae on the edge of the tongue, and the pulse is dull and tight. Diagnosis: dysmenorrhea (cold and blood stasis syndrome). Treatment was given to: Taichong (double), Perimen (double), Xingma (double), Dadun (double), Baihui, Si Shencong, genital area, Touwei (double), Jiusao (double), Sanyinjiao (double), Guanyuan, and Uterus. Among them, when needling Si Shen Cong, the tip of the needle approaches Baihui from four directions. The needles were left in place for thirty minutes after the needles had gained qi, and at fifteen minutes the lifting and inserting twisting method was performed five to ten times. The treatment was started 3~4d before the start of menstruation, once a day for 7 days, for 3 consecutive courses of treatment. The patient reported that after the first course of treatment, the pain on the first day of menstruation was significantly reduced, and the symptom of fear of cold was improved, but it still affected her study and work; after the second course of treatment, the pain in the abdomen during menstruation basically disappeared; after the third course of treatment, the pain disappeared, and there were no other accompanying symptoms. 3 months later, the patient complained that she did not have any pain on the three menstrual periods during the period, and her condition was cured.

6. Summary

Although primary dysmenorrhea has no major organic lesions, it affects the quality of life of patients to varying degrees. Professor Guo's clinical treatment of primary dysmenorrhea is based on the innovative use of the Liver-Brain Acupuncture method, which combines the head with the acupuncture points of the Liver meridian to not only regulate Chong Ren, Qi and blood, so that menstruation can be regulated and pain eliminated, but also adjust the function of the disordered

HPO axis, improve endocrine secretion, and slow down the contraction of the uterine smooth muscle to improve the feeling of pain. The needle method of liver and brain, dual-line regulation, the effect is remarkable, worth clinical promotion, but also for the treatment of other female reproductive diseases to provide new diagnostic and therapeutic ideas.

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