

Clinical Research Progress of Acupuncture and Moxibustion in the Treatment of Postpartum Depression

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Abstract: *Postpartum Depression (PPD) is a common mental disorder among puerperae, which exerts severe impacts on individuals, families, and society. Currently, there is no standard treatment plan for PPD. In recent years, an increasing number of acupuncture and moxibustion therapies have been applied in the treatment of PPD, achieving significant clinical efficacy. This study intends to sort out the clinical studies on acupuncture and moxibustion for PPD, and discuss the clinical efficacy of different acupuncture and moxibustion treatment methods, so as to provide references for clinical practice.*

Keywords: Acupuncture, Moxibustion, Postpartum Depression (PPD).

1. Introduction

Acupoints Postpartum Depression (PPD) is the most common mental disorder among puerperae during the puerperium [1]. Its main symptoms include mental depression, reticence, insomnia with many dreams, mental confusion, and even delirium. In severe cases, some patients may have suicidal tendencies and cause harm to newborns. PPD is highly harmful to the physical and mental health of puerperae: it not only leads to emotional changes such as insomnia, irritability, and sadness, but also causes severe anxiety, fear, and even the development of major depression. Patients with depression may experience loss of appetite, weight loss, and lack of energy; in extreme cases, suicide may occur. Meanwhile, PPD also affects the intelligence, emotion, and behavior of newborns, bringing great pressure to families and society.

Clinically, drug therapy is commonly used for PPD, but it has relatively large side effects. Acupuncture and moxibustion therapy, however, has the advantages of fewer side effects and a wide range of indications, making it suitable for promotion to alleviate the negative impacts of PPD on puerperae, infants, families, and society. Psychological therapy and antidepressant drugs are regarded as the “gold standard” for PPD treatment, with significant clinical efficacy. Nevertheless, they have adverse reactions such as withdrawal effects, sexual dysfunction, and liver damage, which limit their long-term application. Non-pharmacological treatments show greater clinical prospects for PPD, and more and more PPD patients tend to choose traditional Chinese medicine (TCM) interventions.

2. Etiology and Pathogenesis of Postpartum Depression

2.1 TCM Perspective on Etiology and Pathogenesis

Most TCM scholars believe that the etiology and pathogenesis of PPD mainly include the following aspects [2]:

1) Insufficiency of heart blood: Constitutional blood deficiency, excessive postpartum blood loss, or prolonged

emotional distress after childbirth may consume heart blood implicitly. When blood fails to nourish the heart, mental activities are disrupted, leading to emotional disorders in puerperae. According to the TCM “visceral manifestation theory”, the five Zang-organs are the core of human life activities. The heart governs blood vessels and mental activities; when the body is in a state of Qi and blood deficiency or heart-spleen deficiency, symptoms such as mental trance and depressive mood are likely to occur.

2) Liver Qi stagnation: Ancient TCM literatures have long recorded PPD-like symptoms. For example, Zhu Bing Yuan Hou Lun (Treatise on the Causes and Manifestations of Diseases) states: “This is due to severe labor injury during childbirth... Qi rebellion attacks the heart, leading to heart vexation” (in the chapter of “Postpartum Deficiency-Fever with Shortness of Breath Syndrome”); Zheng Zhi Zhun Sheng (Standards of Diagnosis and Treatment) mentions: “Postpartum women may have mental trance, disorganized speech, and poor sleep”; Yi Zong Jin Jian - Fu Ke Xin Fa Yao Jue (Golden Mirror of Medicine - Essential Principles of Gynecology) further points out: “Postpartum blood deficiency makes heart Qi unstable and mental state fragile, leading to palpitations and restlessness”. In TCM, PPD is classified into the category of “Yu Zheng (depressive disorder)”, which is mainly associated with the liver. Since women “take blood as the foundation and the liver as the priority”, the liver has the closest relationship with PPD. Emotional factors such as excessive worry, anger, or sudden fear, combined with postpartum physical weakness (e.g., economic pressure, environmental changes, or relationship troubles) and liver blood deficiency (liver fails to store blood, and blood fails to contain the “soul”), may cause mental confusion and eventually lead to PPD.

3) Blood stasis: Postpartum Qi deficiency (caused by fatigue-consuming Qi) may lead to poor blood circulation and blood stasis; alternatively, exposure to cold after childbirth (e.g., rainy weather) may cause cold congealing and blood stasis. In addition, residual blood and turbid fluid in the uterus after childbirth may “attack the upper body” and disturb mental activities, all of which can result in PPD.

2.2 Modern Medical Perspective on Etiology

At present, the pathogenesis and etiology of PPD have not been fully clarified. Studies using perinatal animal models have shown that the imbalance of adrenocorticotropic hormone (ACTH) secretion during pregnancy and abnormal activity of the hypothalamic-pituitary-adrenal (HPA) axis play important roles in the occurrence and development of PPD. However, further research is needed to explore how to correct or prevent these abnormalities.

Modern medicine believes that PPD is caused by multiple factors, among which biological, social, and psychological factors are dominant [3]. Genetic factors, endocrine changes, and stress are all important influencing factors. With the in-depth development of the Human Genome Project, many studies have confirmed that genetic factors can be an independent cause of PPD, and the occurrence and development of PPD are closely related to gene polymorphism [4]. Changes in hormone levels (from a significant increase during early pregnancy to a sharp decrease after childbirth) can affect the emotional state of puerperae. Moreover, the degree of daily life stress is significantly positively correlated with the severity of PPD.

3. Acupuncture and Moxibustion Therapies for Postpartum Depression

3.1 Conventional Acupuncture for PPD

3.1.1 Meridian-Based Acupoint Selection

All meridians in the human body have specific running routes on the body surface. The “meridian-following acupoint selection method” refers to selecting acupoints far from the lesion site along the meridian corresponding to the affected area during acupuncture treatment. Meridian syndrome differentiation is an important principle in acupuncture. Yang Xiujuan et al. [5] divided 41 PPD patients into an acupuncture group and a Western medicine group for a controlled trial. The acupuncture group received acupuncture and moxibustion at specific acupoints to treat PPD: Shenting (GV24), Baihui (GV20), Neiguan (PC6), Dazhui (GV14), and Shenzhu (GV12) were selected to calm the mind; Fengchi (GB20) was used to dredge the liver and gallbladder; Tanzhong (CV17) and Juque (CV14) were applied to regulate Qi flow. The preliminary results of this study showed that the efficacy of the acupuncture group was significantly better than that of the Western medicine group, and both treatments could improve PPD symptoms. Chen Jie et al. [6] divided 52 PPD patients into two groups (26 cases in each group). The treatment group received acupuncture at Baihui (GV20) and Sishencong (EX-HN1) to refresh the mind and regulate Qi flow; Neiguan (PC6) to calm the mind and improve sleep; Hegu (LI4) and Taichong (LR3) to dredge the liver and regulate Qi and blood; Sanyinjiao (SP6) to regulate Qi and blood of the liver, spleen, and kidney meridians; and Zusanli (ST36) to tonify the spleen and invigorate the stomach. The control group was given fluoxetine hydrochloride oral solution. The study found that both groups achieved good efficacy, but the treatment group had fewer adverse reactions, indicating that acupuncture is also an effective method for PPD.

2.2 Special Acupuncture Techniques for PPD

3.2.1 Scalp Acupuncture

Scalp acupuncture [7], or head acupuncture, is based on visceral and meridian theories. It involves needling specific scalp areas corresponding to cerebral cortex functional regions to treat systemic diseases. Xu Shujuan [8] applied scalp acupuncture at Baihui (GV20) to improve mental state and Yintang (EX-HN3) and the reproductive area (a 2 cm line from the forehead corner parallel to the midlines) to regulate qi and relieve pain. Results showed scalp acupuncture was significantly more effective than conventional treatment for PPD.

3.2.2 Abdominal Acupuncture

“Abdominal acupuncture” is a therapy centered on the “Shenque (CV8) latent Qi” theory and based on the meridian theory. Yu Hongjuan [9] used abdominal acupuncture to treat PPD: Zhongwan (CV12) and Xiawan (CV10) were selected to regulate postnatal spleen deficiency; Qihai (CV6), Guanyuan (CV4), and Shenshu (BL23) to regulate congenital kidney deficiency; Qihai (CV6) and Qipang (extra point) to regulate liver Qi. Data from the Hamilton Depression Rating Scale (HAMD) of 68 patients showed that abdominal acupuncture had a good therapeutic effect on PPD.

3.2.3 Acupuncture at Sun’s Thirteen Ghost Points for PPD

Shuigou (GV26) is one of the Thirteen Ghost Points, which is commonly used in clinical practice to treat mental disorders such as delirium, mania, and depression. Yu Shujing et al. [10] randomly divided 60 PPD patients into a treatment group and a control group using a random number table. The treatment group received acupuncture at Sun’s Thirteen Ghost Points, with Shuigou (GV26) and Fengfu (GV16) as the main acupoints; for severe cases, Daling (PC7), Neiguan (PC6), and Baihui (GV20) were added. The control group took fluoxetine hydrochloride capsules. The study showed that acupuncture at Sun’s Thirteen Ghost Points had a significant therapeutic effect on PPD, with few toxic and side effects and rapid onset of action, making it suitable for clinical application.

3.2.4 Needling the Four Gates Points for PPD

Sigua Points consist of bilateral Hegu (LI4) and Taichong (LR3). These two acupoints are the source points of Yang meridians and Yin meridians respectively: Hegu (LI4) is mainly for regulating Qi, while Taichong (LR3) is mainly for activating blood. Together, they can dredge meridians and regulate Qi and blood. Source points are the locations where the “primary Qi” of the Zang-fu organs circulates and stays. Primary Qi originates from the “moving Qi between the kidneys” and is distributed throughout the body via the triple energizer (Sanjiao), coordinating the internal and external body functions and regulating the Qi transformation of the Zang-fu organs. Hegu (LI4) is located in the upper limb and can lift Qi and blood; Taichong (LR3) is located in the foot and is responsible for promoting Qi descent. The combination of these two acupoints can balance Qi movement, coordinate the upper and lower body, and harmonize Yin and Yang. Using methods such as electroacupuncture to stimulate Sigua Points can relieve related symptoms, regulate mood, and

finally smooth the whole body's Qi movement to improve the patient's mood. During childbirth, puerperae often suffer from Qi and blood deficiency as well as Qi stagnation and blood stasis. Therefore, acupuncture at Sigua Points can soothe the liver, regulate Qi, and harmonize Qi and blood.

3.2.5 Needling Zhiyin (BL67) for PPD

Zhiyin (BL67) is the Jing (Well) Point of the Bladder Meridian of Foot-Taiyang, which has the effects of clearing the head and eyes, and dredging meridians and collaterals. Chen (full name not provided in the original text) used single-acupoint therapy (acupuncture at Zhiyin (BL67)) to treat 15 patients with moderate PPD. Among them, 6 patients failed to complete the full-course treatment due to traffic jams, and no significant change in their symptoms was observed before and after treatment; the other 9 patients successfully completed the treatment and showed significant improvement. This study suggests that acupuncture at Zhiyin (BL67) has a certain therapeutic effect on PPD, but further expanded clinical studies are needed to confirm its efficacy.

3.3 Combination Therapies with Acupuncture

3.3.1 Moxibustion Combined with Acupoint Application for PPD

Moxibustion can stimulate the governor vessel, support healthy qi, unblock stagnation, and guide yang qi into the brain. The head is where the zang-fu organs, meridians, and qi and blood converge. Baihui (GV20) is the meeting point of the yang meridians, governor vessel, and liver meridian. It tonifies yang, calms the mind, improves intelligence, and refreshes the brain. "The heart houses the mind, the spleen houses thought." Taichong (LR3) is the source point of the liver meridian. Moxibustion can regulate the prefrontal cortex's "memory" function and influence brain regions related to depression. Moxibustion at Xinshu (BL15), Pishu (BL20), and Taichong (LR3) can calm the mind, tonify the kidney and spleen, and soothe the liver, harmonizing the zang-fu organs' qi and functions [11].

Acupoint application therapy involves applying herbal preparations to specific acupoints under TCM theory, combining acupoint stimulation with topical herbal therapy [12]. Studies suggest specific rapid absorption channels may exist at acupoints [13]. According to TCM herb properties, pungent herbs disperse and move qi and blood; sweet herbs tonify, harmonize, and relax. Postpartum conditions often involve deficiency and stasis. Tonifying herbs like ginseng, prepared rehmannia, and licorice supplement qi and blood; herbs like Aucklandia and Chuanxiong activate blood and resolve stasis. Clinical studies confirm that applying herbs to points like Baihui (GV20), Sishencong (EX-HN1), Pishu (BL20), Xinshu (BL15), Taichong (LR3), and Zusanli (ST36) can warm and unblock meridians and regulate the zang-fu organs [14].

3.3.2 Acupuncture Combined with Moxibustion Therapy for PPD

PPD falls under the category of "depression patterns" in TCM. Ling Shu·Xing Zhen states: "More yang leads to more joy."

PPD patients' despondency, preference for stillness, and low mood align with "yin" characteristics and yang deficiency patterns like cold limbs and lack of energy, hence the concept of "yang deficiency causing depression." Ling Shu·Wei Qi says: "Spirit is born from and resides in the five zang organs." Ling Shu·Bei Shu proposes: "The heart houses the spirit, the liver houses the ethereal soul, the spleen houses the intention, the lungs house the corporeal soul, the kidneys house the will." Thus, the five zang organs correspond to the seven emotions. Qi deficiency in back-shu points leads to zang organ deficiency, resulting in mental dullness and emotional instability. Therefore, emotional disorders can be treated via the back-shu points of the five zang organs. These points are on the bladder meridian, which connects to the brain. Applying warm needling (acupuncture with moxibustion) to these points uses the needle to move qi and moxa to warm yang, supplementing and unblocking yang qi and harmonizing the zang-fu organs. This approach warms the zang organs, regulates the spirit, resolves depression, regulates the thoroughfare and conception vessels, strengthens the spleen, and calms the mind, ensuring the five spirits are nourished and emotions flow without stagnation. Previous literature shows warm needling improves post-stroke depression and menopausal depression. Based on the postpartum tendency to deficiency, warm needling with yang-warming and qi-moving methods significantly improves PPD symptoms without significant complications, making it worthy of clinical promotion. Its anti-depression effects may involve promoting the release of neurotransmitters like 5-HT, NE, and BDNF.

3.3.3 Acupuncture Combined with Psychological Intervention for PPD

PPD often involves heart blood deficiency. Acupuncture methods to tonify qi and blood can be combined with psychological intervention. Acupoints such as Ganshu (BL18), Shenshu (BL23), Guanyuan (CV4), Qihai (CV6), and Sanyinjiao (SP6) are needled with reinforcing method and moxibustion. Psychological therapy includes: 1) creating a harmonious family atmosphere and providing adequate social support; 2) analyzing the patient's psychological and personality characteristics, understanding their feelings, and guiding them to relieve mental pressure; 3) applying Ellis' ABC theory and therapy techniques. Music is a form of sound energy that can eliminate and alleviate mental disorders. TCM Five-Element Music has a long practice history, which combines five tones, five elements, five Zang-organs, and emotions. It has achieved certain efficacy in the clinical treatment of PPD. Wang Shucheng et al. combined modern psychological therapy with TCM Five-Element Music therapy and observed the clinical efficacy of 120 PPD patients. The results showed that the effective rate of the combined therapy group (Five-Element Music therapy + psychological therapy) was 90.00%, which was higher than that of the single psychological therapy group (76.67%). The levels of depression-related biochemical indicators (e.g., 5-HT and estradiol (E2)) in both groups were significantly lower than those before treatment, and the reduction effect was more obvious in the combined therapy group. Acupuncture has no side effects and does not affect breastfeeding. Combined with psychological intervention, it can effectively treat PPD and provide long-term consolidation.

4. Discussion

In summary, the etiology and pathogenesis of PPD are postpartum Qi and blood deficiency, and emotional distress leading to liver Qi stagnation and heart-spleen deficiency. This study summarizes that acupuncture at acupoints such as Baihui (GV20), Yintang (GV29), and Sigu Points can alleviate patients' mental state by soothing the liver and relieving depression, tonifying the heart and spleen, and nourishing Qi and blood.

Sun Hua et al. [15] observed the effects of acupuncture at Baihui (GV20) and Zusanli (ST36) on the behaviors of depression model mice and rats. The results showed that acupuncture achieved similar efficacy in improving the emotional state of depressed animals as Chinese materia medica and Western medicine, indicating that acupuncture has a bright prospect for popularization in the treatment of PPD.

Acupuncture and moxibustion have significant efficacy in the treatment of PPD, with advantages such as few side effects and convenience. Although progress has been made in the clinical treatment of PPD, current clinical studies still have problems such as inconsistent standards for acupoint selection, small sample sizes, and lack of long-term follow-up. More rigorous and scientific clinical trials are urgently needed to promote the application of acupuncture and moxibustion in PPD treatment.

In modern society, the accelerated pace of life has led to increasing mental pressure. Many puerperae not only bear the pressure of work and family life but also suffer from negative physical impacts of pregnancy and childbirth. Therefore, society and families should pay more attention and understanding to pregnant and postpartum women. For PPD patients, it is necessary to strengthen communication, provide encouragement and assistance to reduce their mental pressure, and combine Chinese and Western medicine treatments to promote their early physical and mental recovery.

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