

EFFICACY OF ACUPUNCTURE IN THE MANAGEMENT OF POLYCYSTIC OVARY SYNDROME (PCOS): A NARRATIVE REVIEW

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Abstract

Background: In the management of PCOS, acupuncture has clear benefits and significant curative effects. It can effectively improve the insulin resistance, regulate menstrual frequencies, increase ovulation rate and pregnancy rate. Acupuncture's effectiveness and safety for PCOS patients are still unknown because of the gaps and inconsistencies in the available research. This article examines the effectiveness and safety of acupuncture in the treatment of PCOS and identifies its drawbacks in an effort to offer a better clinical approach to the condition. The application of the practical TCM principle is limited and generalised protocols are followed which have limited the effect of acupuncture as an adjunctive therapy for women with PCOS.

INTRODUCTION

Polycystic ovary syndrome (PCOS) is an endocrine disorder which is commonly found across the globe and affects reproductive-aged women worldwide.^[1] It is characterized by hyperandrogenism, menstrual irregularity, and the presence of polycystic ovaries.^[2,3] Though the cause of PCOS is thoroughly not understood, it is considered to be a complex disorder influenced by genetic, endocrine, and environmental factor.⁴⁻¹⁶ While there is currently no cure for PCOS, various treatment modalities exist to manage its symptoms and improve quality of life.^[4]

One such treatment modality is acupuncture, which has gained attention as a potential therapy for women with PCOS. Acupuncture is a practice rooted in Traditional Chinese Medicine (TCM). It involves inserting thin needles into specific points on the body. The goal of acupuncture is to restore balance to the flow of energy, or qi, and stimulate the body's natural healing processes. With a history spanning thousands of years, acupuncture has been utilized to address a broad range of health conditions and has recently gained popularity as a complementary therapy for PCOS.

Research has increasingly focused on investigating the effects of acupuncture on PCOS-related symptoms, including menstrual irregularity, hormonal imbalances, insulin resistance, and

psychological well-being.^[5-7] Acupuncture has shown promise in regulating menstrual cycles, increasing the frequency of ovulation, and restoring hormonal balance, which can be particularly beneficial for women trying to conceive. Additionally, acupuncture has been associated with improvements in psychological symptoms related to PCOS, potentially reducing anxiety and improving emotional well-being. This holistic approach to PCOS management contributes to its appeal as a complementary therapy.^[8]

Combining acupuncture with conventional treatments, such as oral contraceptives or metformin, has demonstrated potential for producing more significant improvements in menstrual regularity, hormonal profiles, and insulin sensitivity compared to acupuncture used alone. The exact mechanisms by which acupuncture exerts its effects in women with PCOS are still not fully understood. However, some studies have proposed potential mechanisms of action. For example, Li et al. (2021) suggested that acupuncture may regulate the hypothalamic-pituitary-ovarian axis to improve hormonal balance.^[9] Zhang et al. (2020) proposed that acupuncture may enhance insulin sensitivity by positively changing the expression of genes associated with insulin signals.^[16] Several studies have investigated the effects of acupuncture on PCOS-related outcomes. For instance, Jedel et al. conducted a trial with 75 participants, using

electroacupuncture as the intervention. They found that repeated low-frequency electroacupuncture was significantly effective; more than physical exercise in improving monthly menstrual frequency.^[21] Johansson et al. conducted an RCT with 32 participants, assessing the effects of acupuncture on hirsutism, hormone levels, and ovulation frequency. The acupuncture group showed increased ovulation frequency and significant changes in glucose metabolism parameters.^[19] Zhang et al. conducted an RCT with 40 participants, evaluating the impact of acupuncture on quality of life, and found that acupuncture improved participants' quality of life.^[7] Lim et al. reviewed 13 RCTs and found that acupuncture improved menstrual regularity.^[8] Li et al. conducted an RCT with 60 women and showed that acupuncture reduced testosterone levels.^[9] Zhang et al. reviewed 13 RCTs and indicated that acupuncture improved insulin resistance.^[5] Wang et al. reviewed 9 RCTs and suggested that acupuncture may improve insulin resistance.^[17] Wu et al. reviewed 17 RCTs and found that acupuncture improved ovulation rates.^[18]

While the evidence from these studies collectively suggests potential benefits of acupuncture in improving various hormonal and metabolic variables, menstrual regularity, insulin resistance, and quality of life in women with PCOS, it is important to consider the limitations of these existing research work. Studies vary in terms of sample size, treatment protocols, and outcome measures, making it challenging to draw definitive conclusions. Further research, including larger and more rigorous studies, is needed to elucidate the mechanisms of action and establish the efficacy of acupuncture as a treatment modality for PCOS.^[22-26] Thus acupuncture holds promise as a complementary therapy for women with PCOS. It has shown potential in improving menstrual regularity, hormonal balance, insulin resistance, and psychological well-being.^[11-16] Combining acupuncture with conventional treatments may lead to more significant improvements in PCOS symptoms. However, further research is needed to provide stronger evidence and establish standardized protocols for acupuncture treatment in PCOS.^[17-26]

Acupuncture has shown promising results in improving various aspects of gynecological health, including menstrual regularity, testosterone levels, insulin resistance, ovulation rates, and quality of life. However, it is important to acknowledge that the current body of research has limitations, such as small sample sizes and varying study designs, which necessitate further investigation. While acupuncture has demonstrated positive outcomes in some studies, it is crucial to conduct larger trials with robust methodologies to establish its efficacy in managing PCOS. Moreover, considering the principles of Traditional Chinese Medicine (TCM) and individualized treatment approaches may enhance the effectiveness of acupuncture. TCM emphasizes the proper alignment of Qi and personalized

interventions based on the manifestation of the disease, utilizing methods like tongue and pulse diagnosis.

To better understand the potential benefits of acupuncture in PCOS management and its broader application in non-communicable diseases, further research is warranted. Future studies need to facilitate larger sample sizes, long term follow-ups, adherence to TCM principles, and comparisons with conventional treatments. By conducting rigorous clinical trials, we can gain a deeper understanding of acupuncture's role in PCOS management and optimize its integration into comprehensive treatment approaches.

In summary, acupuncture holds promise as an adjunctive therapy for women with PCOS, but more research is needed to establish its efficacy and guide its clinical application. By considering individualized approaches and adhering to TCM principles, acupuncture has the potential to contribute to the holistic management of PCOS and improve the overall well-being of affected individuals.

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