

Treating Common Gynecologic Conditions With Acupuncture

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The practice of acupuncture is becoming more popular in clinical settings as women seek alternatives to traditional Western medicine to treat common gynecologic conditions.

Traditional Chinese medicine (TCM) has a long clinical history dating back 2,000 years. TCM includes acupuncture, herbal remedies, and dietary therapy. Western medicine and TCM have had difficulty merging, as they inherently have vastly different foundations. Western medicine is often based on clinical and scientific evidence, while TCM holds a holistic and macroscopic perspective.¹ This inherent difference has led to a slow acceptance and ultimate use of TCM in Western medicine.

The lack of sound research methods in TCM have led to universal skepticism among many clinicians regarding the effectiveness of acupuncture treatment. It is difficult for many evidence-based clinicians to read about yin and yang and the 5-element theory (wood, fire, water, metal, and earth) and be able to incorporate it into daily practice.² Despite the lack of data, many women are turning to complementary and alternative medicine (CAM) in attempt to find relief from various gynecologic symptoms.

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VASOMOTOR SYMPTOMS

Menopause can be a difficult transition in a woman's life, with hot flashes causing the greatest degree of anguish. Hormone treatment has shown to be effective in relieving hot flashes; however, many women are unable to take estrogen, secondary to underlying disease or fear of negative side effects.³ For these reasons, CAM has become an increasingly appealing alternative.

The evidence for use of acupuncture to treat hot flashes has been variable. A recent study by Castelo Branco de Luca et al supported acupuncture as an effective method for relief of climacteric symptoms in menopausal women.⁴ A proposed mechanism focuses on the increase in serotonin and endogenous opioid peptides induced by needle insertion. Sham acupuncture also relieved vasomotor symptoms compared to baseline, which suggests a placebo effect. Overall, treatment of hot flashes with TCM was shown to be effective, with few side effects.

Vasomotor symptoms are also common side effects of antiestrogen hormone therapy for breast cancer treatment. Venlafaxine is the current treatment of choice in this population of women. A recent randomized controlled trial comparing venlafaxine to acupuncture therapy found equivalent efficacy between the 2 modalities in treating hot flashes, depressive symptoms, and other quality-of-life symptoms, with acupuncture having fewer side effects.⁵

DYSMENORRHEA

Primary dysmenorrhea is a common gynecologic disease, with a prevalence ranging from 30% to 75%; approximately 50% of these women require medication each month.⁶ Dysmenorrhea is a result of increased uter-

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ine muscular activity and tone, which can lead to excessive spasmodic contractions and subsequent uterine ischemia.⁷ Severe cases may also include symptoms such as headache, nausea, diarrhea, abdominal bloating, and backache.⁸ Elevated concentrations of prostaglandin F₂ alpha (PGF₂a) or PGF₂a/PGE₂ ratios are associated with these symptoms, which has led to NSAIDs as the first choice in medical management.⁷

Acupuncture has been used to treat dysmenorrhea for many years. A proposed mechanism for benefits of acupuncture include an increase in estradiol, cortisol, and adrenocorticotrophic hormone, as well as stimulation of T₅ through L₄ sympathetic preganglionic fibers for the pelvic plexus.⁶ A study by Helms followed 43 women with dysmenorrhea for 1 year.⁶ He found that 90.9% of those who received acupuncture showed improvement, while 36.4% in the placebo acupuncture group found relief. There was also a 41% reduction in pharmacologic therapy use by women who had real acupuncture, as well as decreased extragenital symptoms such as nausea, headache, and backache.

This study supports the use of acupuncture therapy in the treatment of dysmenorrhea, especially in women who cannot tolerate NSAIDs.

PREMENSTRUAL SYNDROME

Premenstrual syndrome (PMS) is a condition characterized by an array of behavioral, psychologic, and physical symptoms that recur cyclically with the luteal menstrual cycle.⁹ The exact pathophysiology underlying PMS is uncertain, which has led to a creative array of putative treatments including antidepressants, oral contraceptives, hormonal interventions, diuretics, and calcium supplementation.¹⁰ Approximately 40% of women do not find relief with the current therapeutic options; thus, there is increased interest in alternative therapies.

A recent systematic review by Cho and Kim investigated the efficacy of acupuncture in the treatment of PMS symptoms.¹¹ This review included 9 randomized controlled trials and evaluated all forms of acupuncture techniques including classical, electroacupuncture (EA), laser acupuncture, and acupoint injection. Six of the trials reported superior results of acupuncture therapy compared to control.

The review cited the limitations: namely, a small number of trials and methodologic flaws within the trials, which may have exaggerated the positive effects of acupuncture. This systematic review cannot conclude that acupuncture is an effective treatment for PMS above current modalities; nonetheless, the findings are sufficiently promising to encourage additional research in this field.

ENDOMETRIOSIS

Endometriosis refers to disorders caused by the presence of endometrial glands and stroma outside the endometrial cavity and uterine musculature, which can lead to progressive dysmenorrhea, dyspareunia, infertility, and abnormal menstruation.¹² Current treatment options include expectant management, pharmacotherapy using analgesics with or without hormonal therapy, and surgery. Acupuncture is gaining popularity as an alternative treatment modality for endometriosis.

A recent survey by Han and colleagues evaluated the efficacy of TCM in relieving the symptoms of endometriosis.¹² Multiple TCM techniques were evaluated, including internal, external, and comprehensive treatments. Herbal modalities were classified as internal treatment, while acupuncture was classified as external treatment. The common goal among all methods focused on promoting blood circulation and decreasing blood stasis.

Xiong Yun-bim et al found that twice-a-day EA starting 4 days prior to menstruation and lasting 5 days total was 95.7% effective in relieving symptoms.¹² In a separate case report by Highfield and colleagues, a modest improvement in endometriosis symptoms was found when patients underwent 9 and 15 treatments over a 7- to 12-week period.¹³

Overall, acupuncture treatment is suspected to assist in alleviating pelvic pain associated with endometriosis; however, additional research is needed to confirm these findings.

INFERTILITY

Approximately 9% of reproductive-age women experience infertility.¹⁴ The great financial burden that in vitro fertilization (IVF) can create, in combination with the anguish of repetitive disappointments, has led many couples to seek alternate ther-

apy. Smith et al recently conducted an 18-month study of 428 California women undergoing infertility treatment and found that 29% used CAM, with 23% of these couples utilizing acupuncture.¹⁵ The women using CAM were more likely to be older, have a higher income, have used IVF, and have failed to achieve pregnancy.

Ho and colleagues performed a prospective randomized trial evaluating the effects of acupuncture on 44 infertile women by comparing the pregnancy rates and the changes in uterine artery pulsatility index (PI) during IVF cycles.¹⁴ Thirty women received EA twice a week for 2 weeks, from day 2 to the day before oocyte retrieval. The pregnancy rate was not significantly different—30% in the acupuncture group and 28.6% in the nonacupuncture group. Despite similar pregnancy rates, the mean PI was significantly reduced after EA. This decrease in PI is likely attributable to the decreased tonic activity in the sympathetic vasoconstrictor fibers traveling to the uterus. Further research is needed to apply these findings to IVF.

The option of EA as a replacement for conventional analgesia in oocyte aspiration has also been investigated. A prospective randomized trial by Gejervall et al compared EA with paracervical block (PCB) to conventional analgesia (alfentanil IV) with PCB.¹⁶

Overall, women in the EA group reported significantly more pain during and directly after oocyte aspiration. Despite these findings, 50% of the women in the EA group reported they would be willing to use EA again for pain relief. Women in the EA group also experienced decreased postoperative confusion and fatigue. Although EA should not be offered as an equal pain-relieving method, this study suggests that it should be offered as a safe alternative to women desiring nonpharmacologic therapy.

POLYCYSTIC OVARY SYNDROME

Polycystic ovary syndrome (PCOS) is a common endocrinopathy that is associated with anovulation, hyperandrogenism, obesity, and insulin resistance.¹⁷ Despite its increasing prevalence, the etiology of PCOS continues to be incompletely understood. Ovarian hyperandrogenemia is often the most consistent endocrine clinical feature and is enhanced by increased luteinizing hormone (LH) amplitude and pulsatility.

Pharmacologic treatment focusing primarily on antiestrogens has been used with moderate success. Expanding on the core knowledge of mu-receptor modulation and increased sympathetic tone in PCOS patients, acupuncture has been proposed to assist in these symptoms.¹⁸

Stener-Victorin et al evaluated the effects of EA in 24 women diagnosed with PCOS.¹⁷ EA was given twice a week for 2 weeks and once a week thereafter for a total of 10 to 14 treatments. Of the 24 women, 9 (38%) experienced a “good effect,” which was defined as repeated ovulations (or pregnancies) during the treatment period or within 3 months posttreatment.¹⁷ The successful group had significantly lower BMI, testosterone concentrations, and testosterone/sex hormone-binding globulin ratios. A significant decrease was also seen in LH/follicle-stimulating hormone ratios, testosterone, and beta-endorphins in all women.

This study suggests that repeat EA treatments can exert long-lasting effects on endocrinologic markers and anovulation in PCOS patients with decreased metabolic disturbances. In addition, 7 out of the 9 women who experienced good effects from EA were also clomiphene resistant, which may propose EA as a competitive alternative in this population of women. Additional randomized research is needed to further confirm these results.

OVERACTIVE BLADDER

Overactive bladder (OAB) is a common pathology affecting 10% to 15% of women.¹⁹ OAB can cause a great amount of psychological distress, including social isolation and subsequent low self-esteem. Current therapies include behavioral therapy, physical therapy, and anticholinergic medications. These treatment modalities have been shown moderately effective, which has led to interest in alternate therapies.

Several studies have supported acupuncture as a potential treatment of urinary urgency and frequency; however, these studies were not randomized nor blinded.¹⁹ A more recent trial compared 74 women who were randomly assigned true acupuncture or placebo acupuncture aimed at relaxation for 4 weekly treatments.¹⁹

Results showed that the treatment group had significant reductions in urinary frequency and urgency and significant in-

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For patients suffering from OAB syndrome, acupuncture may be a potential therapy.

creases in maximum cystometric capacity and voided volume. Although additional studies with larger sample size are needed to confirm these results, this study supports the use of acupuncture as a potential therapy to patients suffering from OAB syndrome.

CONCLUSION

Despite the lack of strong evidence supporting the use of acupuncture in gynecology, the large number of women seeking out and benefiting from CAM cannot be ignored. Clinical and experimental evidence demonstrates that acupuncture can be a valuable alternative in both gynecologic and reproductive medicine; however, additional research is needed with improved study designs and adequate controls for placebo effects. As acupuncture becomes more readily available, it will likely become an increasingly appealing option to women seeking assistance in gynecologic health.

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