## **Acupuncture Premature Ovarian Failure Finding**

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Controlled studies find acupuncture effective for the treatment of premature ovarian failure (primary ovarian insufficiency). This condition is characterized by the loss of normal ovarian function prior to the age of 40. The average age of onset is 27. Research measures the efficacy of acupuncture in the regulation of hormone levels,

reduction of anxiety and other forms of mental stress, and the ability of acupuncture to alleviate menopausal related symptoms. Importantly, the research demonstrates that acupuncture is effective in restoring endogenous estrogen production.

Premature ovarian failure (POF) results in hormone insufficiency or lack of regularity of egg release, often resulting in infertility. Irregular menstruation or amenorrhea may result. Other indications include hot flashes, night sweats, vaginal dryness, low libido, and difficulty concentrating. FSH (follicle-stimulating hormone), estradiol, prolactin, karyotype, and FMR1 gene tests are helpful in the diagnosis of POF. Conventional treatment often involves estrogen replacement therapy. Complications associated with POF are heart disease, depression, anxiety, osteoporosis, and infertility.

According to Traditional Chinese Medicine (TCM) principles, POF is often caused by a combination of excess and deficiency patterns, including kidney yin deficiency, spleen qi and liver blood deficiency, and liver qi stagnation with deficiency heat. As we note later in this article, there are correlates to TCM differential diagnostic patterns in conventional biomedicine. For example, Li Qin Zhao notes in the research entitled 'The Treatment of premature ovarian failure using TCM' that kidney yin deficiency is linked to estrogen deficiency. Let's take a look at the research and the treatment options available to women with POF.

Chen et al. (Tianjin University and Chinese Medical Sciences, Beijing) conducted a study to investigate the effects of acupuncture on POF. A total of 31 women were selected for the study and were given acupuncture treatments once every other day, three times per week, for 3 months. The acupuncture points used were the following:

- GV20 (Baihui)
- GV24 (Shenting)
- GB13 (Benshen)
- CV3 (Zhongji)
- CV4 (Guanyuan)
- BL23 (Shenshu)
- BL32 (Ciliao)
- ST25 (Tianshu)
- ST28 (Shuidao)
- ST29 (Guilai)
- ST36 (Zusanli)
- SP6 (Sanyinjiao)
- KD3 (Taixi)
- LV3 (Taichong)

The size of the needles used and the depth of the insertion were as follows:

- Needles with size of 0.25mm x 25mm were inserted horizontally into a depth of 20mm for GV20, GV24, and GB13, and perpendicularly for KD3 and LV3.
- Needles with size of 0.25mm x 40mm were inserted perpendicularly into a depth of 30–35mm for CV3, CV4, ST25, ST28, ST29, ST36, and SP6.
- Needles with size of 0.30mm x 75mm were inserted obliquely to a depth of 50–60mm for BL32.

For acupoint BL32, a strong deqi sensation was elicited, radiating to the lower abdomen. For other acupoints, mild reinforcing-reducing methods were used to achieve a deqi sensation. The needles were retained for a maximum of 20–30 minutes.

To measure the effect of acupuncture treatments, researchers used serum levels for FSH, E2 (estradiol, a type of active estrogen), and LH (luteinizing hormone), and self-rated anxiety scale (SAS) and Kupperman scores prior and post-acupuncture treatments. Additionally, menstrual cycles were self-recorded by the patients during one month follow-up visits.

At the end of the acupuncture treatment period, researchers found that the serum FSH and LH levels decreased, E2 levels increased, and SAS and Kupperman scores decreased. The researchers write, "The serum FSH level dropped to 48 (+/- 16.6 IU/L) from baseline to the end of treatment (p = 0.001), the serum E2 level rose to 68.24 (+/- 36.15 pmol/L) (p = 0.001), and the serum LH level dropped to 17.01 (+/- 11.66) (p = 0.001)." Out of the 31 participants, 6 patients resumed menstrual cycles from the treatment. The researchers conclude that acupuncture treatment decreases patients' serum FSH and LH levels, raises serum E2 levels, reduces anxiety and mental stress, and alleviates menopausal symptoms.

Sha et al. examined the effects of acupuncture in the treatment of POF combined with conventional medicine. A total of 151 POF patients ranging from age 26 to age 40 were included in the study. On average, the patients had suffered from POF for 5.6 years. A total of 103 of the patients were diagnosed with kidney and liver yin deficiency and the rest were diagnosed with spleen and kidney yang deficiency. The patients were randomly separated into an acupuncture group (76 cases) and a control group (75 cases). The acupuncture group received treatment at the following points:

- CV4 (Guanyuan)
- CV3 (Zhongji)
- KD12 (Dahe)
- MCA18 (Zigong)
- BL23 (Shenshu)

In addition to these 5 points, patients diagnosed with kidney and liver yin deficiency also received acupoints SP6 (Sanyinjiao), SP9 (Yinlingquan), BL18 (Ganshu), MHN3 (Yintang), and KD7 (Fuliu). Patients diagnosed with spleen and kidney yang deficiency received needling of acupoints BL20 (Pishu), GV4 (Mingmen), BL32 (Ciliao), and SP8 (Diji). Treatments were applied for 20 minutes each session, once every week, for 6 weeks. The control group received two medicines: 50mg of clomiphene for 5 days, and 0.5–1mg of diethylstilbestrol tablets for 20 days. Next, no drugs for 5-7 days was followed by a repeat of the clomiphene and diethylstilbestrol administration. The process was repeated for a total of 6 sessions.

The researchers measured serum FSH, LH, and E2 levels prior to and after the treatment. There was a statistically significant reduction in FSH level for both groups (p < 0.001). The reduction in LH levels and increases in E2 levels were significant for the acupuncture group (p < 0.01), but did not show statistically significant differences for the control group (p > 0.05). The acupuncture group produced an effective rate of 89% and the drug group had an effective rate of 64% (p < 0.01).

Li Qin Zhao notes that "the key point of treating POF is to nourish kidney yin to support oestrogen, strengthen spleen qi, and tonify blood to increase blood supply to the uterus and ovaries." Li Qin Zhao has three main treatment methods based upon differential diagnostics:

- i. Kidney yin deficiency, spleen qi and blood deficiency
- ii. Liver qi stagnation, liver blood deficiency with heat
- iii. Blood stagnation in the uterus

Li Qin Zhao documents one patient from each diagnostic pattern to highlight treatment protocols. All three patients were treated with acupuncture and Chinese herbal tablets. For patient number one with kidney yin deficiency with spleen qi and blood deficiency, the treatment was designed to "nourish blood and kidney yin, strengthen spleen qi and kidney qi." The Chinese herbal tablets used were: Ba Zhen Yi Mu Wan (Eight Treasure Pill to Benefit Mothers) and Liu Wei Di Huang Wan (Six Ingredient Pill with Rehmannia). The acupuncture points used were the following:

- GV20 (Baihui)
- PC6 (Neiguan)
- CV4 (Guanyuan)
- MCA18 (Zigong)
- SP10 (Xuehai)
- ST36 (Zusanli)
- SP6 (Sanyinjiao)
- KD3 (Taixi)
- BL17 (Geshu)
- BL20 (Pishu)
- BL23 (Shenshu)

After 4 weeks of treatment, the patient's menstrual cycle returned and was regulated to 28 days. For the second patient (with liver qi stagnation and liver blood deficiency with heat), weekly acupuncture treatment was administered to the following points:

- MHN3 (Yintang)
- GV20 (Baihui)
- LI4 (Hegu)
- LI11 (Quchi)

- ST25 (Tianshu)
- CV4 (Guanyuan)
- ST29 (Guilai)
- SP8 (Diji)
- ST36 (Zusanli)
- SP6 (Sanyinjiao)
- LV3 (Taichong)

The Chinese herbal medicines used were: Zhu Yun Wan, Tiao Jing Bu Xue Wan, and Zuo Gui Wan. After 4 weeks of treatment, the menstrual cycle was regulated, FSH levels lowered, and estradiol levels increased. The condition for the third patient was spleen qi and kidney yang deficiency with liver qi and blood stagnation. The acupuncture points used were the following:

- GV20 (Baihui)
- PC6 (Neiguan)
- HT7 (Shenmen)
- CV4 (Guanyuan)
- CV6 (Qihai)
- ST36 (Zusanli)
- KD3 (Taixi)
- BL23 (Shenshu)
- GV4 (Mingmen)

The Chinese medicines used were Shi Quan Da Bu Wan, Cong Rong Bu Shen Wan, or Nuan Gong Yun Zi Wan. After 5 weeks of treatment, the menstrual cycle returned. All three patients successfully conceived after the acupuncture and Chinese herbal medicine treatments.

The aforementioned research documents that acupuncture and herbal medicine provide effective treatment options for women with POF. Objective and subjective measures documents clinical significant improvements in positive patient outcomes.

## References

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