

The Effect of Chinese Herbal Medicine and Acupuncture on Female Infertility by Inducing Artificial Ovarian Cycle

Dr Dan Jiang, MMedSci

Visiting Professor of Beijing University of Chinese Medicine
Supervisor of SSC for medical students in the University of Sheffield

Abstract: *The disorders of reproductive and endocrinal systems are the common causes of female infertility. The problems can be either organic or dysfunctional. The author analyses the aetiology and pathogenesis of the illness, and the mechanisms of acupuncture and Chinese herbal medicine treatments. The article reports predominantly of how TCM therapies treat infertility by working on the menstrual and ovary circle. Some successful cases are included, of both natural pregnancies supported by TCM and pregnancies with IVF treatment and supported by TCM.*

Disorders of the reproductive and endocrinal systems are common causes of female infertility. These disorders can be either structural or dysfunctional. In her practice over the last decade, the author helped more and more women with infertility conceived their babies by using acupuncture and Chinese medicine to improve their functional disorders, or even cure their organic diseases.

I realized that it is a right treatment method to use acupuncture and Chinese herbal medicine based on integrated theories from traditional Chinese medicine and modern medicine for treating female infertility caused by reproductive and endocrine disorders.

1. Background understanding:

A female starts a normal menstrual circle when her sexual harmony and reproductive function have been matured around twelve years old. Under the effects of relevant hormones, such as Luteotropic hormone (LH), Follicle-stimulating hormone (FSH), gonadotropic hormone that are produced by the pituitary and Hypothalamus, a follicle develops mature and releases from her ovary every month, which moves to the uterus through a fallopian tube. If it is fertilized with a vital sperm to make a fertilized egg and implant into the endometrium of the uterus, a normal pregnancy will result. If it hasn't met a vital sperm, it will flow out with some pieces of endometrial tissue as menstruation.

Following the above routine, I classify the menstrual cycle into four stages with different functions to be focused on each week:

In the first week: follicle growth;

In the second week: follicle is matured and detached from the ovary (ovulation);

In the third week: progesterone growth;

In the fourth week: preparation of menstruation and menstruation or protection of foetus.

Therefore, I try to manage TCM treatments to follow the above routine.

In the West, there are increased incidences of infertility, which are caused by various reproductive and endocrine disorders. The common reasons include:

- Long-term stress/depression affecting the ovarian function to cause ovarian mal-development, or early failure. Some young females suffer from amenorrhea when they undergo PHD study, or high degree courses, or after a severe accident.
- Excessive physical work or training during puberty causes mal-development in the ovaries or uterus resulting in menoxenia, often seen in some athletes and dancers.
- Excessive use of the contraceptive pill causes imbalance of Oestrogen & Progesterone causing their ovarian activity decreased. Some women in western countries take contraceptive therapies for over 10 years.
- Marriage or pregnancy in later ages.
- Taking drugs, or excessive alcohol intake.

These reasons cause a disturbance of the menstrual/ovarian cycle and result in amenorrhea, dysmenorrhoea, or menoxenia, which are common pathological causes of infertilities.

Unexplained infertility accounts of nearly 50% of the total. The routine treatment targets are to balance hormones, promote ovulation, or strengthening of the organic functions in a particular period of the menstrual cycle. We need not only to re-regulate each organic function, but also to rebalance the whole system.

2. Methods of inducing artificial ovarian cycle by acupuncture & herbal medicines.

2.1 Fundamental theory of TCM:

After in-depth reading of many academic literatures of various schools of TCM from traditional classical books and taking some theories from biomedical physiology and pathology into account, I feel the importance of integrated theories from both TCM and western medicine to guide the treatment methods. I create TCM treatment principles according to the different stages of the menstrual cycle below: (Some different treatments will be selected for the patients who show predominance on either the Kidney Yin or Yang Deficiencies.)

In the first week: strengthen kidney and spleen, which are pre-heaven and post-heaven organs to promote follicle growth. TCM recognizes that the kidney is an initial source to produce the original and reproductive Qi.

The spleen is an important organ to continuously supply Qi & blood. Therefore, treatment should be focused on strengthening kidney and spleen in the first stage of the menstrual cycle.

In the second week: nourish Yin and culture essence, move stagnated Qi & blood stasis. Nourish kidney Yin to produce essence for strengthening maturing follicles; move stagnant blood to detach the matured egg from the ovary.

In the third week: warm Yang and nourish Yin to promote progesterone growth:

“If you plan to strengthen Yang, you must nourish Yin to treat Yang.” This quotation explains a treating experience, which is a key technique on kidney’s tonification. It means you should use herbs to nourish kidney Yin, before warm kidney Yang, or use both of above herbs together. Strengthening Yang in the kidney meridian warms Qi & blood to remove their stagnations in ovaries and uterus, which agitates progesterone.

In the fourth week: Spread liver Qi and blood to regulate menstruation; or strengthen spleen and kidney to protect foetus when pregnant.

a) When the woman is in the last week before her menstruation, she easily presents with liver Qi stagnation leading to blood stasis, which can cause dysmenorrhoea. Therefore, it is a necessary treating principle to move stagnated Qi and stasis of blood to release dysmenorrhoea.

b) If fertilized, the woman becomes pregnant. However, if she still possesses a deficiency of Qi and blood, she could easily present a miscarriage. Therefore, if a woman who has a miscarriage history, or has some symptoms and signs of Qi and Blood deficiency, continuing tonification in this stage to prevent miscarriage.

2.2 Fundamental theory and technique of Acupuncture:

Acupuncture can be often effective in treating infertility if applied correctly, and it is more acceptable by the British population. I always use acupuncture, often combined with Chinese herbal medicine in treating female infertility. It has such effects:

2.2.1 Stimulate and strengthen the self-regulating functions:

For example, some women present with unexplained infertility, which may be caused by taking contraceptive pills for a long

time. Due to excessive intake of artificial Oestrogen, the vitality of progesterone in their body has been decreased, or the proportion of these hormones is out of balance. Therefore, they present with infertility, but no any structural abnormality can be detected, so unexplained infertility is diagnosed. Acupuncture is good at stimulating the self-regulating function inside of the body to balance the hormonal disorder.

2.2.2 Promote ovulation: this has been proven by some research.

2.2.3 Strengthen self-healing function:

For example, women with endometriosis may have some damages to their endometrium of uterus from excessive endometrial tissues displacement. Endometria become unsmooth, so it is hard for the fertilized egg to implant.

Acupuncture will strengthen the self-healing function of endometria to improve the condition of the uterus.

Acu – points:

Main points: Guanyuan (Ren3), Zhongji (Ren2), Guilai (St29), Shenqu (Ren8) Moxui

Supporting points: Baihui (Du20), Waiguan (Sj5), Zulinqi (Gb41), Zusanli (St 36), Zhaohai (Ki6), Fuliu (Ki7), Taixi (Ki3), Taichong (Liv3), Sanyinjiao (Sp6) etc.

These points are selected according to the pattern/syndrome differentiation.

2.3 Fundamental theory and prescription of herbal medicines:

Chinese herbal medicine is used to support acupuncture. Integrating both will make the treatment fulfill the purpose expected for the individual patients.

Many forms of Chinese herbal medicines can be selected: patent, concentrated herbal powder and natural dry herbs. The treating power increases following the order of the

above herbal forms. However, the patent herbs are easy to take and cheaper, makes it more suitable for patients with mild or functional disorders. Powders and dry herbs are usually prescribed to individual cases and in correspondence with different stages of the menstrual circle. In this way, herbal medicine can give better effects.

Method:

According to TCM syndrome differentiation, herbs selected for the different menstrual stages are shown in the table.

	Treating principle	Predominance in kidney yin def		Predominance in kidney yang def	
		Patent	Powder/dry herbs	Patent	Powder/dry herbs
The first week*	Tonify of kidney and spleen to promote follicles growth	Guipi Wan, Zhibaidihuang Wan	Nuzhenzi, Hanliancao, Xuduan, Tusizi, etc.	Bazhen Wan, Wujibaifeng Wan	Xianmao, Yinyanghuo, Danggui, Xiangfu, etc.
The	Nourish Yin essence, and	Zhibaidihuang	Danshen,	Wujibaifeng	Danggui, Xiangfu,

second week	move blood stasis to support maturing egg and ovulation	Wan, Taohongsiwu Wan	Xiangfu, Taoren, Honghua, etc.	Wan, Bazhenyimu Wan	Taoren, Honghua, etc.
The Third Week	Warm Yang and nourish Yin to Promote progesterone's growth	BazhenWan, Jinkuishenqi Wan	Shudihuang, Roucongrong, Tusizi, Heshouwu, etc.	Nuangongyunz i Wan, Buzhongyiqi Wan	Baqitian, Tusizi, Danggui, Aiye, ect.
The Forth Week	Spread stagnated Qi and move blood stasis to regulate menstruation; or tonify kidney and spleen to protect foetus	Chaihushugan Wan, Jiaweixiaoyan Wan, Guipi Wan	Danshen, Xiangfu, Chishao, Zelan, ect.	Xiaoyao Wan, Tongjing Wan	Danggui, Xiangfu, Chuanxiong, Zelan, ect.

* The first day of menstruation is the start of the first week.

3. Case studies

3.1. Natural pregnancy supported by acupuncture and herbal medicine

Case 1: Unexplained infertility

Ms C A, 27 years old, who is a physiotherapist. No pregnancy for five years after her marriage. Gynaecological consultant has done all sorts of the examinations which are all negative. Therefore, unexplained infertility was diagnosed and she was referred to me for TCM treatment.

Present symptoms: stress, restlessness, feeling weepy and nervous, worse in the week prior to her period, minor dysmenorrhoea, and constipation.

Following five months of regular menstrual cycle supported by acupuncture and patent herbal medicine, she was naturally conceived and delivered a healthy boy in a full term.

Case 2: Infertility caused by the early failure of ovaries

Mrs. J W, 29 years old, who is a researcher in PHD degree, has irregular menstruation for all of her life. She has to take oestrogen pills to give her regular periods. After her marriage,

she wanted to become pregnant, but she has not had her period for more than two years after she stops her oestrogen pill.

Her oestrogen level: < 50. So she was diagnosed as an early failure of ovaries.

Present symptoms: depression, insomnia, nervous, restlessness etc.

As a medical researcher, she initially did not have much confidence in TCM. After trying acupuncture weekly at first, then patent herbs being added for three months, she found that her oestrogen level increased to 65.

Therefore, she wanted to continue TCM treatment. I changed her treatment from patent herbal form to dry herbal prescription and continued her weekly acupuncture. Her oestrogen level had increased to 165 after three months and she had her period every other month. Until being pregnant, she had been using TCM for eleven months. She delivered a health baby boy on term and gave eight months of breast-feeding. She started her regular period, and then she had another pregnancy the natural way 18 months after her first child.

Case 3: Infertility caused by Polycystic Ovary:

Ms H W, 32 years old, who is a medical researcher, had an irregular menstruation for five to six years. Amenorrhea occurred sometimes, which always lasts 2 – 3 months. She was diagnosed with polycystic ovary syndrome. She was given regular acupuncture and patent herbs until her period became regular. Then she conceived and delivered a health baby boy. After two years, she had another pregnancy with similar TCM support.

Case 4: Infertility caused by endometriosis, with IVF failed.

Mrs. C W, 29 years old, who is a clerk, suffered from endometriosis, which caused dysmenorrhoea. After failing IVF twice, she was seeking the help from TCM. Regular acupuncture and patent herbal medicines were given to help her completely recover from IVF and release her dysmenorrhoea. Then she successfully conceived and delivered a baby girl.

Case 5: Habitual miscarriages caused by excessive prolactin.

Mrs. C F, 35 years old, who is a secretary, has had three miscarriages during last three years. She had a high prolactin level. The gynaecological consultant believed that the excessive prolactin may be related to stress. She was not fit to accept hormonal treatment, so she was referred to try alternative and complementary treatment.

Present symptoms: During the first two to three days after her last miscarriage, she felt stressed, depressed, weepy, had insomnia and abdominal pain. Another ultrasound examination found multiple cysts on both of her ovaries, which were removed with a laparoscope. I used acupuncture and herbal medicine to help her

recover and support pregnancy. She has conceived in a half year and continues to accept treatment for foetal protection. She had a baby girl when she arrived full term.

2. TCM supporting IVF:

Case 1: After three times of failed IVF, a successful pregnancy with triplets with support by TCM.

Mrs. T F, 27 years old, who is a trainer, had had no result when she tried to become pregnant for more than five years.

She was diagnosed with a blockage on her left fallopian tube and cysts on her left ovary. Her husband was found having some antibodies in his sperm, which cannot fertilize his wife's egg. A laparoscopy has been done to take the cysts away, but she was told both of her fallopian tubes being blocked,.

The couple both received TCM treatments. The husband took some patent herbs for improving his sperm condition; the wife used regular acupuncture and concentrated herbal powders for making a regular menstrual cycle. After two years of treatment, she had her fourth IVF with a successful multiple pregnancies and had a caesarean to have two girls and one boy, all in healthy conditions.

Case 2:

A woman who is near menopause has been supported by TCM to have a boy through IVF.

Mrs. S M, 49 years old, is a teacher. She was pregnant when she was 23 years old, but had a miscarriage in 40 days. She had never been conceived again since then. After she was 40 years old, she started to worry about her reproductive function and sought diagnosis and treatment. She had blockage on both of her fallopian tubes and failed two times with IVF. She visited me when she was 49 years old after missing her menstruation for two months.

She also had exhaustion, hot flashes, depression, tinnitus, insomnia, and other symptoms. After a half year of TCM treatment, with tonification of kidney and spleen to regulate her hormones, she restarted her period and all the symptoms disappeared. Then she had a healthy son with a successful IVF.

Conclusion:

Supporting the menstrual cycle and inducing ovarian cycle with regular acupuncture and herbal medicine is an effective therapy for female infertility. Not only is it able to support females conceiving, by improving their reproductive function; raising hormonal levels and harmonizing the whole system; it also raises the success rate of IVF. By a way of analogy: acupuncture and herbal treatment function like ploughing which makes the seeds easier to implant. If a patient is in a good general and local condition, she will also easily conceive in a natural way, or with the help of IVF etc.