

# **Clinical Significant and Case reports on Acupuncture with Chinese Herbal medicine (TCM)'s promotion to Assistant Reproductive Technology (ART)**

**---Cases report and clinical analysis experienced in UK**

**Ms Dan Jiang & Dr Lily Li**

**Abstract:** ART (Assisted Reproductive Technology) is the medical technology which its inventor, British scientist Prof Robert Edwards, was awarded the Nobel Prize for Physiology or Medicine in 2010; ART has made revolutionary progress in the treatment of infertility, such that it has become the routine treatment of infertility in conventional modern / western medicine in UK and throughout the world. Initially, there was not a high success result from ART, but its success rate has gradually increased in the last few years. During this procedure, TCM (Acupuncture and Chinese Herbal medicine) plays an unignorable supportive role. The author describes her experience on how to prepare patients with acupuncture and necessary herbal medicine to promote success rates for IVF and other forms of ART. The key effect from TCM is to promote diminished ovarian reserve, to increase quality of eggs, to enhance endometrium receptivity and to regulate until matched to relevant function of reproductive organs which caused the original disease. The clinical trial and relevant deep research should be done later on.

**Key words:** TCM, Acupuncture, ART, IVF

## **Author introduction:**

**Ms Dan Jiang** MMedSci, TCM Consultant (is awarded by WFCMS),

Fellow of BAcC & Fellow of ATCM

Principal of Hallam Institute of TCM UK, Vice-principal of Asante Academy of TCM affiliated with Middlesex University UK, Clinical TCM Consultant to GP-TCM Research Association, and Visiting professor of Beijing University of Chinese Medicine.

Email: [djiang52@hotmail.com](mailto:djiang52@hotmail.com)

Website: [www.jiangacu-herbconsultant.com](http://www.jiangacu-herbconsultant.com)

Mob: 0044 (0)7841880695

**Dr Lily Li:** FRCS MRCS MA (Cantab) MB/BChir BA (Hons)(Cantab) is a Specialty Registrar in Trauma & Orthopaedics on the North West London rotation. She completed medical school in Cambridge and is completing her higher surgical training in London. She is trainee representative for T&O for Imperial College Healthcare NHS Trust and for the North West London rotation. She is a Fellow of the Royal College of Surgeons of England and a member of the British Orthopaedic Association. She is currently the Senior Management Fellow at Imperial College Healthcare NHS Trust.

- **General background:**

**ART** (Assistant reproductive technology) is the medical technology which its inventor, British scientist **Prof Robert Edwards** (27 September 1925 – 10 April 2013), was awarded the Nobel Prize for Physiology or Medicine in 2010 (1); ART has made a revolutionary progress to treat Infertility, so it has been becoming the mature and routine treatment to Infertility in Conventional modern / western medicine in UK and throughout the world. Initially, there was not a high successful result from ART (2), but its successful rate has gradually been increased in last few years. During this procedure, except technological progress by the medical fertility team, TCM plays an unignorably supportive role which should be paid more attention (3, 4).

**General Introduction on ART:**

There are 5 main treatments in ART: IUI – Intra-Uterine Insemination (Simple IVF); IVF – In Vitro Fertilisation (Typical IVF); IVM – In Vitro Maturation; Vitrification – ‘The Fast-freezing Method’; ICSI – Intra-Cytoplasmic Sperm Injection. (5)

**Acupuncture and TCM’s promotion to ART:**

Acupuncture and TCM (Traditional Chinese Medicine) are common elected as the alternative and complementary therapies by patients before and during their accepting IVF and ART. Although there is confusion on acupuncture’s effect (6), special only two times of acupuncture which are given around of OA (Oocyte Aspiration ) and IVF-ET (IVF- Embryo Transfer ), some of reviews and researches display negative results (7); whether does acupuncture not work? Or is acupuncture done in a wrong method? (4) Authors summary these clinical cases as below who expect to explore how do acupuncture in a right way for promoting IVF? Why can TCM, or whole system--multiple therapies of TCM promote IVF, for increasing its successful rates of conceive and Child-birth?

- **Case reports on TCM’s promotion to ART:**

**Case1: a success result from IUI after TCM’s preparation:**

Ms L, a 29 years old receptionist, has attempted to get pregnant for two years without positive result. She had continuously taken contraceptive pills since she was 15 year old for 12 years and stopped two years ago after she was married. She had amenorrhea for 6 months, then she started having a regular menstrual circles 4-5 /28—32 since 4<sup>th</sup> Jun 2010. Due to stressful work and the worry about her pregnancy, she visited infertility clinic for her hormonal and her husband's sperm examination. All of them were found to be in the normal state, then she registered for an IVF treatment which was due 3 months after that. She came to visit TCM clinic for releasing her stress, insomnia and wanted to have a good result with her IVF treatment. Due to the fact that her friend was given a successful preparation by TCM for getting an easy IVF, she also looked for TCM's promotion. Clinical figures: stress, nervousness, restlessness, poor sleep, tiredness and a minor menstrual pain; Light red tongue with less coating, wiry and fine pulse.

Differentiation of TCM: Liver Qi stagnation with blood stasis; Kidney and Spleen Qi Deficiency;

Acupuncture and Moxibustion:

Shen que: Moxi

Acupuncture: Du 20 (Baihui), Du24 (Shenting)

Ren 4 (Guanyuan), Ren6 (Qihai), Ext18 (Zigong)

Sj5 (Waiguan), Gb 41 (Zulinqi), H7 (Shenmen), Sp 9 (Yinlingquan),

Sp6 (Sanyinjiao), Ki3 (Taixi), Ki6 (Zhaohai), Ki10 (Rangu)

Patent herbs: Jiaweixiaoyao Wan/ Renshenguipi Wan

**Outcome:** after she got three months of TCM treatment, she kept her menstrual circles 4-5/28 without period pain, she was given an IUI when she saw her gynecological consultant who also believed that she was in a good condition, and her husband had good quality sperm. She had a quick and positive result and got conceived. She had a baby boy after she got in a full term.

**Analysis:** IUI is a simple type of ART. Due to a long period of taking contraceptive pills, although she recovered her menstrual circles, and possessed normal hormonal examination figures, her ovary was not sensitive enough. TCM diagnosis for her was Kidney deficiency; she was in a pre-clinical state, so couldn't conceive easily. Acupuncture was the best and the

most suitable treatment for her state, which gave her some necessary stimulation to rehabilitate her ovary function completely. Some patent herbs were given to her for increasing the treating effect. Gynecological consultant also believed her state was improved, and there was a good sperm from her husband, so she was given IUI only — a simple type of ART. She had success after only one attempt.

**Case2: a successful result from ICSI after TCM's preparation:**

Mrs H, a 34 years Old Iranian English housewife, had been attempting pregnancy for 3 years without positive result with an irregular menstrual circle. Her period comes 4-5/ 1-3months with stress, nervousness, and restlessness; due to infertility, the couple felt a lot of pressure. Her husband Mr. S, 37 years old IT technician, is found some abnormality in his sperm as well lower sperm account (Density 0.10 million / ml), less than 25 % of sperm motility. When they registered to go for an ART treatment and got in a waiting list, they came to see TCM clinic. She had received acupuncture for two months before she visited to my clinic.

Diagnosis of western medicine:

Mrs. H: Polycystic ovary / Irregular menstruation

Mr. S: Sperm disorder

Treatment: both of them were given a regular TCM treatment:

Mrs. H:

Clinical figures: irregular menstrual circles: 4-5/30-90, nervousness, restlessness, tiredness, Stress, some acnes on chins and chest, loose bowel movement. Light red and plump tongue with teeth marks, wiry-fine pulse.

Differentiation syndrome of TCM: Damp-phlegm accumulation with blood stasis and spleen and Kidney deficiencies

Acupuncture and moxibustion:

Shenque: Moxi

Acupuncture: Ren4Guanyuan, Ren6 Qihai, St29 Guilai, Du20 Baihui, Du24 Shenting,  
Sp9yinlingquan, Sp6 Sanyinjiao, St36 Zusanli, Sj5 Waiguan, Gb41Zulinqi

Herbal medicine: Shudihuang (Radix Rhemanniae Glutinosae Praeparata) 15,

Xianmao (Rhizoma Curculiginis Orchioidis) 10,

Yinyanghuo (Herba Epimedii) 20,  
Danggui (Radix Angelicae Sinensis) 10,  
Banxia (Rhizoma Pinelliae Ternatae) 10,  
Cangzhu (Rhizoma Atractylodis) 10,  
Chuanxiong (Radix Ligustici Wallichii) 10,  
Chishao (Radix Paeoniae Rubrae) 10,  
Yimucao (Herba Leonuri Heterophylli) 10,  
Fuling ((Sclerotium Poriae Cocos)) 10,  
Xiangfu (Rhizoma Cyperi Rotundi) 10,  
Honghua (Flos Carthami Tinctorii) 10

Before ovulation: Zishiying (Fluoritum) 10,

Taoren (Semen Pruni Persicae) 10 are added

Before period: Tusizi (Semen Cuscutae Chinensis) 10-30,

Zelan (Herba Lycopi Lucidi) 10 are added

Mr. S:

Clinical figures: stress, generally feeling good. He didn't recognize his sperm disorder before.

Light red tongue, wiry pulse

Differentiation of TCM: Liver Qi stagnation and Kidney Qi deficiency

Patent herbal medicine: Wuziyanzongwan / Jiaweixiaoyaowan

**Outcome:** after regular TCM treatment for 5 months, Ms. H was having her period every months 4-5/28-30; when they got the Gynecological consultant's appointment, the expert was very pleased about her state and relevant hormonal level. The sperm observation of Mr. S also improved (Density 20 million / ml, 50 % of sperm motility)

The expert of laboratory suggested they can accept ICSI.

They were given an ICSI, a sperm in the best quality is elected in the laboratory which was transferred into the wife's uterus. She got conceived and went through a normal pregnancy procedure and had a healthy baby boy in the full term.

**Analysis:**

ICSI is a type of ART which elects a sperm in a good quality in the laboratory and injects it into lady's egg, then put fertilized egg into uterus, so it is suitable for men with sperm disorder. Both of this couple had some problems, this is why they tried 3 years to conceive without a positive result. The wife was treated for her irregular menstruation which might be PCOS (8), and she got a successful result and had a regular menstrual circle; the sperm of the husband was improved with patent herbs, but they may still need a longer time to have a natural pregnancy. The ICSI technique gave them quick success, after their sufficient preparation with TCM.

### **Case3: a quick success from one going of IVF after TCM's preparation:**

Ms. C, 36 years old adult career, has attempted pregnancy for 4 years without success. She was given contraceptive injection for 10 years and stopped it 4 years ago. Initially, she had very irregular menstrual circles, then it gradually got regular, but shorter: (6-7/21-23 with 2 days of period pain). After being checked in fertility clinic, she was found FSH33, and AMH1.7, so she was told that a normal IVF was not possible, but it might be possible for her to be given an IVF with the donor eggs. This news made her very disappointed, so they visited my clinic for help.

Clinical figures: short menstrual circles with long bleeding days: 6-7/ 21-23 with 2 days of period pain; nervousness, restlessness, headache, poor sleep, abdominal pain, very upset mood. Light red tongue with red at tip and sides, many cracks at the tongue; deep-wiry pulse.

Differentiation of TCM: Liver Qi stagnation with heat and blood stasis; and Kidney Yin Deficiency

Acupuncture: Shenque: Moxi

Ren3 Zhongji, Ren6 Qihai, Ext 18 Zigong;

Du20 Baihui, Ext. Taiyang, Sp9 Yinlingquan, Sp6 Sanyinjiao;

Ki3 Taixi, Ki6 Zhaohai and Ki10 Rangu

Sj5 Waiguan, Gb41 Zulinqi,

Herbal medicine prescription:

Shudihuang (Radix Rhemanniae Glutinosae Praeparata) 30,

Danggui (Radix Angelicae Sinensis) 10,  
Heshouwu (Radix Polygoni Multiflori) 10,  
Gouqizi (Fructus Lycii) 10,  
Nvzhenzi (Fructus Ligustri Lucidi) 10,  
Hanliancao (Herba Ecliptae Prostratae) 10,  
Chaihu (Radix Bupleuri) 10,  
Yujin (Tuber Curcumae) 10,  
Zhike (Fructus Citri Aurantii) 10,  
Honghua (Flos Carthami Tinctorii) 10,  
Shanyao (Radix Dioscoreae oppositae) 10,  
Fuling (Sclerotium Poriae Cocos) 10,  
Chishao (Radix Paeoniae Rubrae) 10

Before ovulation: Zishiying (Fluoritum) 10, Huangbai (Cortex Phellodendri) 10, Zhimu (Radix Anemarrhenae Asphodeloidis) 10 are added into above prescription

Before period: Aiye (Folium Artemisiae Argyi) 10, Tusizi (Semen Cuscutae Chinensis) 10-30, Xuduan (Radix Dipsaci Asperi) 10 are added into above prescription.

Above herbs are decocted as one dose for a day, 6 dose per week. I made some modification in each of her visit, according to her state.

**Outcome:** after she received a regular TCM treatment over a year, she gradually got better in general, and her menstrual circles recovered to normal 4-5/28-30; the FSH and AMH of her went back to normal level. Infertility clinic accepted her for a normal IVF with her own egg. She was retrieved 2 oocytes out for fertilization into embryo, which got transferred into her uterus easily after 4-5 days. She became pregnant soon and got a healthy baby girl in the full term of her pregnancy.

**Analysis:**

IVF is the typical type of ART which is suitable to most reproductive disorders from ladies. The infertility of this lady may be related with a longer time of contraceptive injection, so she had an early weakness of her ovaries. The sensitive hormonal item AMH is lower, FSH is higher, which explained why she had a shorter menstrual circle and longer bleeding days during her period. She belongs to Liver heat and kidney Yin deficiency. So she is given

acupuncture and moxibustion for stimulating her ovary function; and herbal medicine for strengthening kidney to complement a double Qi (vital energy) and Essences which can give significant promotion to her. Because she is still young, her ovary function did not completely collapse, which may only be manifesting a weaker appearance. So her condition significantly improved with TCM promotion, and ready for IVF.

**Case4: a successful result from IVF with own oocyte after TCM's preparation for a lady who had Amenorrhea in a pre-Menopause stage:**

Mrs. S, a 49-year-old teacher, became pregnant when she was 23 years old but had an abortion at 6 weeks of pregnancy. She never managed to conceive after that and she started to worry about her reproductive capabilities when she was 40 years old. A gynecological investigation showed both fallopian tubes to be blocked, plus she failed IVF twice. She visited TCM clinic when she was 49 years old after having missed two months of her menstruation. Due to her amenorrhea, the gynecologists refused another IVF. She also manifested exhaustion, hot flushes, depression, tinnitus, insomnia and other symptoms. Her tongue was red and she had a wiry-thin pulse.

TCM differentiation: Kidney yin deficiency, Liver qi stagnation and Spleen deficiency.

Treatment principle: To nourish Kidney yin, to move stagnant Liver qi and to reinforce Spleen qi.

Treatment given: Acupuncture: Moxibustion at Ren 8 shen que

Needles: Du 20 bai hui, Du 24 shen ting, Ren 4 guan yuan, Ren 6 qi hai, St 29 gui lai, LI 4 he gu, Liv 3 tai chong, Ki 3 tai xi, Ki 10 yin gu, Ki 2 ran gu, St 36 zu san li, Sp 6 san yin jiao.

Patent herbal medicines: Zhi Bai Di Huang Wan / Jia Wei Xiao Yao Wan.

**Outcome:** Once her periods returned she was given the 'promoting the menstrual cycle treatment' for half a year, after which she became pregnant following successful IVF. She conceived a healthy boy at the end of her term.

**Analysis:** This patient had been 49 years old by the time she tried to conceive. Her hormonal levels had been in the final stages which meant she had amenorrhea for two months. After she was given acupuncture, which stimulated her reproductive organs, and herbal

medicines, which had a stronger effect on reinforcing qi and yin in her Kidney and Spleen, her menstrual cycle returned. Her hormonal levels were probably still not high enough for a natural pregnancy, but she was accepted back by her gynecologists due to the menstrual cycle being regular again and IVF was given which proved successful in the end.

**Case5: a successful result with IVF after TCM's preparation to a lady who had three times of failed IVFs; got three healthy babies in this time:**

Mrs. T, a 27-year-old trainer, tried and failed to get pregnant for more than five years. She was initially diagnosed with a blockage on her left fallopian tube and cysts on her left ovary. Her husband was found to have some antibodies in his sperm, which meant he was unable to fertilize his wife's eggs. A laparoscopy was performed to take the cysts away, but during the procedure it emerged that both of her fallopian tubes were blocked.

Both of them accepted TCM treatment and the wife had regular acupuncture and concentrated herbal powders to regulate her menstrual cycle.

TCM differentiation: Liver qi stagnation and Blood stasis.

Treatment principle: To move stagnant Liver qi and Blood stasis.

Treatment given: Acupuncture: Moxibustion at Ren 8 shen que.

Needles: Du 20 bai hui, Ren 4 guan yuan, Ren 6 qi hai, M-CA 18 zi gong, TH 5 wai guan, LI 4 he gu, St 36 zu san li, Sp 6 san yin jiao, Ki 3 tai xi, Ki 6 zhao hai, Liv 3 tai chong.

Concentrated herbal powders:

Chaihu (Radix Bupleuri) 10,

Xiangfu (Rhizoma Cyperi Rotundi) 10,

Zhike (Fructus Citri Aurantii) 10,

Chishao (Radix Paeoniae Rubrae) 10,

Chuanxiong (Radix Ligustici Wallichii) 10,

Danggui (Radix Angelicae Sinensis) 10,

Yimucao (Herba Leonuri Heterophylli) 10,

Ezhu (Rhizoma Curcumae Ezhu) 10,

Wangbuliuxing (Semen Vaccariae Segetalis) 10,

Taoren (Semen Pruni Persicae) 10,  
Honghua (Flos Carthami Tinctorii) 10.

Variation: Nuzhenzi (Fructus Ligustri Lucidi) 10, Hanliancao (Herba Ecliptae Prostratae) 10 and Heshouwu (Radix Polygoni Multiflori) 10 were added following her period.

YueYueShu sachets were added around ovulation for three days. Baishao (Radix Paeoniae Lactiflorae) 10, Ejiao (Gelatinum Corii Asini) 10 were added after ovulation.

**Outcome:** After two years of treatment this patient became pregnant during her fourth IVF and gave birth by caesarean to have a triplet of two girls and one boy, who all were in a healthy condition.

**Analysis:** This was a case of both fallopian tubes being blocked. Although the 'promoting menstrual cycle treatment' was given, it still was insufficient to open her blocked tubes in the short term. So IVF still looked like the best option. But after many failed attempts of IVF, including the hormonal treatment going with the IVF, she still showed symptoms, especially of an emotional nature, so I gave her acupuncture to help her to calm down and to manage, with the help of herbal powders, to regulate her unbalanced hormones. And it was also important for the husband to receive a course of patent herbs to strengthen the quality of his sperm. After the fourth IVF treatment she finally conceived due to being in a good general condition, which she gained with the help of TCM treatment.

**Case 6: A successful cases with two pregnancies respectively from IVF with donor embryos after TCM's preparation and miscarriage protection:**

**2 times of pregnancies produced by IVF with donor eggs following TCM promotion and miscarriage prevention:**

Ms. C is a 41 years old university lecturer with PhD degree. Due to continuous and busy study and work, Ms. C attempted pregnancy for 7 years without a positive result. She gradually started to have irregular menstrual circles for over a year and amenorrhea for two months and a small fibroid (1x1cm) is found in her uterus. She was refused by the infertility clinic for IVF due to her amenorrhea, so she visited TCM clinic for a help.

Clinical figures: Amenorrhea for two months, stress, nervousness, abdominal discomfort, poor sleep, hot flashes, aching in general. Light red tongue with less white coating, wiry pulse

Diagnosis of Conventional western medicine:

- 1 Infertility,
- 2 The early failure of ovaries
- 3 Fibroid

Differentiation of TCM: Liver Qi stagnation with blood stasis and Liver and Kidney yin deficiency

Acupuncture:

Ren8 sheque: Moxibustion

Ren3 zhongji, Ren6 qihai, St29 guilai,

Sp9 yinlingquan, Sp6 sanyinjiao; Ki10 Rangu, Ki6 zhaohai, Ki3 taixi

Du20 baihui, Sj5 waiguan, Gb41 zulinqi

Herbal medicine prescription:

Xiangfu (Rhizoma Cyperi Rotundi) 10,

Shudihuang (Radix Rhemanniae Glutinosae Praeparata) 15,

Dangguiwei (Radix Angelicae Sinensis (extr. | mit. | inf. | rieur)) 10,

Yimucao (Herba Leonuri Heterophylli) 10,

Chishao (Radix Paeoniae Rubrae) 10,

Honghua (Flos Carthami Tinctorii) 10,

Chuanxiong (Radix Ligustici Wallichii) 10

Taoren (Semen Pruni Persicae) 10,

Huangbai (Cortex Phellodendri) 10,

Zhimu (Radix Anemarrhenae Asphodeloidis) 10,

Nvzhenzi (Fructus Ligustri Lucidi) 10,

Shanzhuyu (Fructus Corni Officinalis) 10,

Hanliancao (Herba Ecliptae Prostratae) 10,

Zishiying (Fluoritum) 10

Above herbs are decocted for drinking twice daily as one dose of herbs, 6 packets per week.

**Outcome:**

Her menstruation arrived in the next month. Since then, she has been receiving regular TCM treatments and has got regular period. When she visited infertility consultant, she was suggested to have an IVF with donor egg. Due to the fear that her menopause may come early if otherwise, she and her husband agreed to accept IVF, with the donor egg from another healthy lady, in Barcelona infertility clinic in Spain.

In the next month, two high quality fertilized embryos got transferred into her uterus. After coming back to UK, she kept accepting regular acupuncture with me. At the 8<sup>th</sup> weeks of her pregnancy, she felt bad nausea, and minor symptoms from over reaction to pregnancy, and some vaginal bleeding. I advised her that should take some herbal medicine to prevent miscarriage. However, she hesitated and did not take any herbs during pregnancy, and as a result, she lost one baby. Then, she started taking herbal decoction and maintained acupuncture until the 12<sup>th</sup> weeks of her pregnancy. She had a healthy baby boy in the full term.

The herbal prescription for preventing her miscarriage is:

Sangjisheng (Ramulus Loranthi) 15,  
Baidoukou (Fructus Amomi Cardamomi) 10,  
Xiangfu (Rhizoma Cyperi Rotundi) 10,  
Duzhong (Cortex Eucommiae Ulmoidis) 10,  
Gouqizi (Fructus Lycii) 10,  
Huangqi (Radix Astragali Membranacei) 15  
  
Tusizi (Semen Cuscutae Chinensis) 10,  
Chenpi (Pericarpium Citri Reticulatae ) 10,  
  
Shanyao (Radix Dioscoreae Oppositae) 10,  
Fuling (Sclerotium Poriae Cocos) 10,  
Ejiao (Gelatinum Corii Asini) 10,  
  
Shenqu (Massa Medica Fermentata) 10,  
Zhigancao (Radix Glycyrrhizae Uralensis) 5

After above herbs are taken for one week, she stopped vaginal bleeding, and the symptoms from over reaction to pregnancy also got improved. From the 8<sup>th</sup> to the 10<sup>th</sup> week of pregnancy, she took 4 weeks of herbs until she entered a normal procedure of pregnancy. 2 years later, she got transferred another fertilized embryo again, with acupuncture preparation and miscarriage prevention; this time she displayed no miscarriage signs and labored a healthy baby girl again in the fully term.

**Analysis:**

IVF with donor egg is suitable for ladies who possess unsatisfactory ovary state, so she may not be able to produce good quality eggs. Hence, a younger lady donated her eggs to Ms. C, to be fertilized with her husband's sperm. The fertilized embryos were then transferred into Ms. C, who then needed to go through the whole procedure of pregnancy. She still needed to have a healthy ovary function to respond to the conception.

Due to too much pressure from study and work at the university, she displays some signs that are caused by weak ovary. Doctors in charge of IVF can't accept any ladies without regular menstrual circles. Although with TCM she regained regular menstrual circles, the doctor may still believe that her ovary is not optimal for a normal IVF. She and her husband hence had to agree on doing an IVF with donor eggs.

During pregnancy, because of her weak ovary, she manifested signs of potential miscarriage—vaginal bleeding and low back pain; she managed to keep one baby after starting to take decocted herb, but by that time she has already lost one baby.

From this case, it can be seen that it is quite necessary to support pregnancy when the lady has weak ovaries. TCM plays a complementary role in giving the lady a better state for accepting IVF with donor eggs and prevents miscarriage.

**CONCLUSION:**

To support the menstrual cycle with regular acupuncture and herbal medicine has proven effective in promoting pregnancy with all kinds of ART (4,). TCM can improve the diminished ovarian reserves (9), increase quality of embryo (10), promote the receptivity of the endometrium in the uterus (11) and harmonize the whole reproductive system (12), so it can make a better balance state in general and relevant organic functions for raising the successful pregnancy rate of ART, and also live birth rate.

The effect of acupuncture and Chinese herbal medicine has been proved by clinical observation and placebo trails; this treating mechanism has also been proved by many researching teams (13), although some of them still need to conduct more detailed trials. Acupuncture, herbal medicine, or the whole system of TCM can play a positive preparative

role to raise up general physical state of patients, which has been emphasized in many papers (11). However, if a patient tries TCM only around the time of ART, the treating significant may not appear in time, so she should receive TCM to regulate any abnormal or unsatisfactory condition in advance. If enough time is given, TCM can achieve a significant and valuable effect.

If there is neither a clear diagnosis of conventional western medicine, nor the disorders which can be confirmed in ovaries, or uterus, it is also possible to identify TCM diagnostic patterns according to the different stages of the menstrual cycle. TCM can support ART effectively. By way of analogy: If you want to plant successfully, you have to thoroughly plough the soil before you put the seeds into it. So if you want to conceive easily, you have to improve the endometrium of uterus and create good circulation in the location.

Acupuncture and herbal treatment are like ploughing which helps the uterus and the whole abdominal cavity to stay in a healthy condition. If the patient stays in a good general and local condition, she will easily conceive, with the doctors' help through IVF or any kind of ART.

#### **Reference:**

- 1 Martin H Johnson (2011) Robert Edwards: the path to IVF, *Reproductive Biomedicine Online*. 23(2): 245–262. doi: 10.1016/j.rbmo.2011.04.010
- 2 Klipstein S, Regan M, Ryley DA, Goldman MB, Alper MM & Reindollar RH.(2005) One last chance for pregnancy: a review of 2,705 in vitro fertilization cycles initiated in women age 40 years and above. *Fertility and Sterility*. 84 (2):435-45.
- 3 Hullender Rubin LE, Opsahl MS, Taylor-Swanson L and Ackerman DL. (2013) Acupuncture and in vitro fertilization: a retrospective chart review. *Journal of Alternative and Complementary Medicine*. 19(7):637-43. doi: 10.1089/acm.2011.0888. Epub 2013 Jan 30.
- 4 Hullender Rubin LE, Opsahl MS, Wiemer KE, Mist SD and Caughey AB (2015) Impact of whole systems traditional Chinese medicine on in-vitro fertilization outcomes *Reproductive Biomedicine Online*. 30(6):602-12. doi: 10.1016/j.rbmo.2015.02.005. Epub 2015 Feb 24.
- 5, F. Zegers-Hochschild G.D. Adamson J. de Mouzon O. Ishihara R. MansourK. Nygren E etc on behalf of ICMART and WHO (2009), The International Committee for Monitoring Assisted Reproductive Technology (ICMART) and the World Health Organization (WHO) Revised Glossary on ART Terminology, *Human Reproduction*, Volume 24, Issue 11, P 2683–2687, <https://doi.org/10.1093/humrep/dep343>

- 6, Madaschi C, Braga DP, Figueira Rde C, Iaconelli A Jr & Borges E Jr (2010). Effect of acupuncture on assisted reproduction treatment outcomes *Acupuncture in Medicine*. 28(4):180-4. doi: 10.1136/aim.2009.002022. Epub 2010 Oct 18.
- 7 Andersen D, Løssl K, Nyboe Andersen A, Fürbringer J, Bach H & Simonsen J (2010) Acupuncture on the day of embryo transfer: a randomized controlled trial of 635 patients. *Reproductive and Biomedicine Online*.21(3):366-72. doi: 10.1016/j.rbmo.2010.03.029. Epub 2010 Apr 7.
- 8 D. Jiang TCM Treatment of Polycystic Ovary and PCOS *Journal of Complementary Medicine & Alternative Healthcare* Volume 2 Issue 1 -April 2017 DOI: 10.19080/JCMAH.2017.02.555578
- 9 Zhang Z, Zhang XH and He TY. (2015) Smoothing Gan Reinforcing Shen Method Adjuvant Treated Poor Response of Diminished Ovarian Reserve Patients in in vitro Fertilization and Embryo Transfer: a Clinical Study, *Chinese Journal of Integrative medicine* 35(10):1170-4.
- 10 Ushiroyama T, Yokoyama N, Hakukawa M, Sakuma K, Ichikawa F and Yoshida S. (2012) Clinical efficacy of macrophage-activating Chinese mixed herbs (MACH) in improvement of embryo qualities in women with long-term infertility of unknown aetiology. *America Journal of Chinese Medicine*. 40(1):1-10.
- 11 Guo J, Wang LN and Li D. (2011) Exploring the effects of Chinese medicine in improving uterine endometrial blood flow for increasing the successful rate of in vitro fertilization and embryo transfer *Zhong Xi Yi Jie He Xue Bao*. 9(12): P1301-6.
- 12 Lu LR and Wu KM (2015) Application of traditional Chinese medicine in IVF-ET. *Zhongguo Zhong Yao Za Zhi*. 40(16):3142-6.
- 13 Fang L, Rui-Xia W, Feng-Mei M, Zhen-Gao S, Li-Hong W & Lei S. (2013) Effects of Chinese medicines for tonifying the kidney on DNMT1 protein expression in endometrium of infertile women during implantation period. *Journal of Alternative and Complementary Medicine*. 19(4):353-9. doi: 10.1089/acm.2011.0410. Epub 2012 Oct 17.