The Treatment of Advanced Maternal Age and Diminished Ovarian Reserve - A Case Review Comparison of Acupuncture & IVF Versus Traditional Chinese Medicine Alone

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Abstract

The existing treatment protocol for women diagnosed with advanced maternal age (AMA) and diminished ovarian reserve (DOR) is intrauterine insemination (IUI) with controlled ovarian hyperstimulation (COH) followed by in-vitro fertilization (IVF) with controlled ovarian hyperstimulation (COH). Since AMA carries an increased risk of miscarriage, many AMA/DOR patients elect to proceed with IVF over IUI since IVF allows the patient the ability to screen viable embryos for chromosomal abnormalities prior to transfer. However, due to diminished reserve, it is often difficult for the patient to produce enough viable embryos to proceed with screening. Although the current body of research shows that acupuncture and Chinese herbal medicine may enhance a woman’s reproductive environment by improving hormone imbalances and egg quality and therefore increasing pregnancy outcomes, traditional Chinese medicine (TCM) remains a last resort and under-utilized treatment for patients with AMA and DOR.

Introduction

This case review will examine the benefit of a TCM approach that includes acupuncture, Chinese herbal medicine as well as lifestyle and dietary recommendations in comparison to treatment with acupuncture and IVF alone.
Advanced maternal age (AMA) is defined as age 35 or above at the time of delivery. It is viewed as an impediment in reproduction since it is associated with a decline in egg quality and a higher incidence of complications during pregnancy. In most Western countries, the average women’s age at marriage and child bearing is ever increasing. According to the 2013 National Vital Statistics Reports, birth rates for women aged 30-39 years and 45-49 years increased (2% and 14% respectively), whereas birth rates declined 2-10% in women under the age of 30. (1) Moreover, many single women, mostly around their 40s, are now seeking assisted reproductive techniques (ART) in order to conceive. This increase is largely because women over the age of 35 are shown to have a steep decline in ovarian reserves as well as hormonal imbalances, both crucial factors in one’s ability to conceive.

Diminished ovarian reserve is a natural process often seen in women in their 30s and 40s, but it may affect younger women as well. According to Faddy et all (1992), there is an accelerated decline in follicular pool at the age of 37–38 when it reaches below a critical number of 25,000. (2) This phenomenon is accompanied by a declining quality due to aging oocytes.

Hormonal balance is also a key pregnancy success factor that becomes more challenging with age. Fertility can be disrupted if the level of a particular hormone in the reproductive system is off. There are several phases at which even a slight imbalance in fertility-related hormones could impact pregnancy. If the hormone level is not correct for any of the essential hormones that must work together at various stages of the
reproductive cycle, that hormone imbalance can prevent fertility. The relationship between functioning hormones is very delicate and directly influences the menstrual cycle, ovulation, and overall fertility. (3)

IVF works to overcome these challenges by modifying the natural process of egg production, fertilizing eggs in vitro, and delivering (in most cases) more than one embryo into a hormonally charged endometrium.

**IVF Process**

IVF cycles are comprised of phases: suppression of ovarian function, ovarian stimulation, oocyte retrieval, insemination and culture, and embryo transfer. Exact phases and protocols vary based on patient needs and clinical practices.

The suppression phase rests the ovaries so that they will respond to the stimulation medications. This is commonly achieved with oral contraceptive pills (OCP). Lupron, a GnRH agonist, is added to ensure complete suppression by inhibiting follicular development before stimulation. After suppression, a baseline ultrasound is completed to evaluate a follicle count. A blood test is completed to confirm suppression before stimulation can begin.

Stimulation medications promote the development of multiple follicles by acting like follicular stimulating hormones (FSH). Follicles should grow to 18mm to 22mm in size. The endometrium should be 8-10mm thick and trilaminar in appearance. Additional
medication, commonly known as a hCG trigger shot, is also provided to promote follicle maturation. Oocyte retrieval takes place approximately 36 hours after the trigger is administered.

Once the eggs are collected, they are inseminated conventionally or by manual injection of the sperm within the egg, known as Intracytoplasmic Sperm Injection (ICSI). Once the eggs are fertilized, they are incubated and the patient starts a course of progesterone. Three days after the eggs are fertilized, each egg should mature to an 8-cell embryo. The patient will then have 1-2 embryos transferred into the uterus. About two weeks later, a blood test is completed to determine pregnancy. If the patient is pregnant, a 2\textsuperscript{nd} blood test is completed 48 hours later to ensure progression. Progesterone continues through week 10, sometimes up to week 12. (4)

**AMA and DOR in TCM**

The main organ responsible for fertility, conception and pregnancy is the kidney. Maciocia states in *Obstetrics & Gynecology in Chinese Medicine* that the pre-natal essence and of the original qi come from the Kidney. (5) An important function of the Kidney is the storage of essence, which is the material basis for the formation of menstrual blood. According to TCM theory, tian gui in female becomes menstrual blood (jing xue), and tian gui in male becomes the sperm. The origins of menstrual blood from the Kidney distinguishes it from other blood produced in the body. The Kidney essence not only greatly influences the physiology of women, but it also especially governs puberty, fertility, conception, pregnancy and menopause. (5) Chinese medical doctors
have traditionally identified the female reproductive essence with the women’s menstrual blood. (6)

The famous gynecologist Fu Qing-Zhu said: “[T]he menstruation is not blood but heavenly water or the tian gui. Originating in the Kidneys, it is the essence of consummate yin (the Kidneys), but possessed of the qi of consummate yang (the Heart). Therefore, it is red like blood but it is, in fact, not blood. This accounts for its name, the tian gui or heavenly water.” (6)

In her book, Contemporary Gynecology, Dr. Lifang Liang, OMD, suggests that the growing female workforce is beginning to impact global fertility rates. Physiologically, women’s fertility declines as they marry and have children at a later age. (7)

Bob Flaws suggests that fertility diminishes gradually after the age of 31. Shockingly, the monthly probability of pregnancy is at age 35 is only half that of what it was at 30, and the probability further diminishes. At age 38, the probability is only half of what it was at 35. Researchers think that the most important factor of diminished fertility in women over 30 is the aging of their eggs. (6)

Liang observes that modern women want to start having children at about 35 years old. Unfortunately, egg quality becomes poor and the hormones, specifically estrogen and progesterone, decline as women age. These two hormones are important in the
production of a thick uterine lining. It is difficult for conception to occur and to maintain a healthy pregnancy if the egg quality is poor and the uterine lining is too thin. Therefore, it is crucial to improve the ovarian function in order to prolong the fertile years using TCM treatments in women of advanced maternal age. (7)

Jane Lyttleton agrees that the decline of Kidney essence is the reason fertility declines in aging women. She believes that more miscarriages occur and that more babies with genetic disorders are born to older women for the same reason. (8)

“Kidney jing and yin deficiency not only mean difficulty in producing gametes in the first place but also difficulty in producing healthy effective gametes. Yin deficiency, which exerts its effects more noticeably with age, is a common factor affecting the viability of gametes. In the case of ova, this viability is measured not only in the integrity of the chromosomes in the nucleus of the egg but also in the mitochondria, which have their own DNA. The DNA in a baby’s mitochondria is inherited only from the mother. Although environment and lifestyle can affect the Kidney jing and yin, it is aging which is the main drain on Kidney reserves, evidenced by the fact that many women who become pregnant in their 40s miscarry.” (8)

Lyttleton further describes that when someone has very low essence energy, “they are unable to produce gametes, [so] it is better from a biological and community point of
view that they do not reproduce” (8). Theoretically, with the aid of assisted reproduction technology, a form of essence deficiency will then be perpetuated from one generation to the next. Recent research reveals that babies born as a result of these procedures (ICSI and IVF) are more at risk of major birth defects and will tend to have lower birth weights. This reflects the original cause of the infertility as much as the effects of the procedures. The majority of IVF children have not yet reached reproductive age, so the quality of some aspects of their essence is as yet untested in the early 21st century. (8)

The results of TCM treatment in current literature on women of AMA with POI (premature ovarian insufficiency) are promising. Data suggests that TCM treatments may regulate hormonal imbalance, improve the quality of eggs, and increase pregnancy outcomes. There are various TCM modalities, including acupuncture, Chinese herbal medicine, acupressure, moxibustion, therapeutic massage, dietary and lifestyle recommendations. Acupuncture and Chinese herbal medicine are commonly used together in treatment of patients with AMA, but they are found to be effective when used separately as well. Acupuncture and Chinese herbal medicine are the most studied TCM modalities in current literature, and positive results were reported from several studies. (9)

Acupuncture improves qi and blood circulation in the body to restore energy and hormonal balance. Acupuncture can modulate the menstrual cycle by decreasing FSH and LH levels and increasing Estradiol (E2) levels. In a small observational study, Zhou et al. found that acupuncture decreases FSH level by 39.8 IU/L, and decreases LH levels by 14.81 IU/L, increases E2 levels by 184.18 pmol/L, compared to baseline levels.
in all 11 patients who were treated with electroacupuncture, thus modulating the menstrual cycle. The results were sustainable at the three-month follow-up. (10)

Recent studies found that acupuncture and Chinese herbal medicine restored the regularity of menstruation and reduced perimenopausal symptoms in POI women. In their cohort study, Wang et al. found that menstruation was recovered in 16.7% of the 30 cases, and there was a decrease in perimenopausal symptoms in POI women after 6 months. (11) However, contrary to Zhou et al., there was no statistical difference in the reduction of FSH levels in Wang et al.’s studies. (9)

Chinese herbal medicine (CHM) is widely used in TCM and can promote hormone regulation and improve pregnancy outcomes with minimal side effects. Chinese herbs aim to stimulate various organ functions, so that the body can correct the hormonal imbalance without chemical intervention. In a cohort clinical study, Wing and Sedlmeier (12) found significant reduction in FSH levels between pre- and post-treatment assessments in women of different ages at 6 months, suggesting that CHM is just as effective as acupuncture for women of AMA. In addition to reduction in FSH levels, there was an overall 56% pregnancy outcome in this study after six months of treatment. (9)

A review of 1,851 infertility cases confirmed that pregnancy outcomes tripled in cases where patients used CHM compared to Western pharmaceutical medication alone. (13) In a more recent clinical observation study, Huang and Liang noted that after three consecutive months of taking a particular combination of CHM, 40 POI patients saw an effective therapeutic rate of 92.5%, compared to 73.68% of the 38 cases of POI patients taking hormone replacement therapy (HRT). (14)
Case Study #1: Acupuncture & IVF

History

A 41-year-old woman had been unsuccessfully trying to conceive her second child for 2 years. She had conceived a son naturally 3 years prior without assistance. Prior to seeking acupuncture, the patient had completed 3 rounds of IVF without success. During the unsuccessful rounds of IVF, the patient was only producing 3-4 follicles which yielded 1-2 embryos. The embryos were transferred on day 2 and day 3. Due to the patient’s unsuccessful IVF cycles and low AMH level, the patient was diagnosed by her reproductive endocrinologist with diminished ovarian reserve.

The patient had regular menstrual cycles that varied between 28-31 days. She experiences 5 days of light flow. As a result of her IVF cycles, the patient noticed an increased intensity of her PMS symptoms. She would experience severe cramping at the onset of the flow and migraine headaches before and during the flow.

Overall the patient was in good health and only complained of low energy and neck pain due to a curvature in her cervical spine as a result of being born with torticollis. She commonly slept for 7-8 hours per night and experienced regular digestion. Her tongue was slightly pale with a thin white fur. Her pulses were slightly bowstring and thready.

Diagnostic and Treatment

The TCM diagnosis for this patient is Kidney yin deficiency with Liver blood deficiency.

The patient’s low ovarian reserve and few embryos confirm the diagnosis of Kidney yin
deficiency. Per Lyttleton, a large number of women seeking help for infertility from TCM and IVF fall into the Kidney deficient category. They are often in their late 30s/early 40s or are depleted from overwork. (8)

The patient’s premenstrual headaches, scanty menses, slightly pale tongue, thready pulse, and low energy indicated Liver blood deficiency. When Liver blood and Kidney yin are deficient, essence is not sufficient to nourish the uterus. There are also problems with egg quality, lack of eggs, fertilization and implantation. (6)

The patient’s reproductive endocrinologist recommended that the patient proceed with another round of IVF with an estrogen priming protocol. The estrogen priming protocol uses an estrogen supplement to silence natural hormone production and ovarian stimulation. The estrogen patch is typically prescribed two weeks before day 1 of the cycle and is replaced daily until menses starts. The stimulation period begins and follows the antagonist protocol. This is best for poor responders or women diagnosed with diminished ovarian reserve (DOR).
The patient’s initial treatments focused on preparing her ovaries for her 4th IVF cycle. Acupuncture was focused on nourishing the ovaries and supporting the specific medications the patient was utilizing during the cycle. It was also directed toward supporting the various stages of the cycle.

<table>
<thead>
<tr>
<th>Phase</th>
<th>Acupuncture Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acupuncture during Estrogen Priming:</td>
<td>Yintang, Zi Gong Xue, LI-4 (he gu), SP-10 (xue hai), SP-6 (san yin jiao)</td>
</tr>
<tr>
<td>Acupuncture after Estrogen Priming:</td>
<td>Yintang, CV-4 (guan yuan), LI-4 (he gu), SP-6 (san yin jiao), LV-3 (tai chong)</td>
</tr>
<tr>
<td>Acupuncture during stimulation:</td>
<td>Yintang, Zi Gong Xue, ST-36 (zu san lì), SP-6 (san yin jiao), KI-3 (tai xì)</td>
</tr>
</tbody>
</table>
4th Round of IVF (Estrogen Priming Protocol): 5 follicles retrieved, 3 fertilized and 3 were transferred on day 3. Acupuncture was administered before and after transfer as follows:

Table 2. Acupuncture protocol for embryo transfer

<table>
<thead>
<tr>
<th>Phase</th>
<th>Acupuncture Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acupuncture before transfer:</td>
<td>Si Shen Cong, Yintang, Ear: (Shenmen, Kidney, Spleen) KI-13 (qi xue), LI-4 (he gu), ST-36 (zu san li), SP-6 (san yin jiao)</td>
</tr>
<tr>
<td>Acupuncture after transfer:</td>
<td>DU-20 (bai hu), Yintang, Ear: (Shenmen, Kidney, Spleen), ST-36 (zu san li), KI-3 (tai xi)</td>
</tr>
</tbody>
</table>

As a result of the patient’s previously failed IVF cycles and diminished ovarian reserve, her reproductive endocrinologist recommended that she proceed with a series of back-to-back IVF cycles in order to bank embryos for genetic testing to ensure viability. She also recommended that the patient continue with the estrogen priming protocol with the addition of Clomid and Viagra. Acupuncture continued with the same focus of nourishing the ovaries and supporting the specific medications the patient was utilizing during the cycle.

Table 3. Acupuncture protocol during IVF with Estrogen Priming Protocol

<table>
<thead>
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<tbody>
<tr>
<td>Acupuncture during Estrogen Priming:</td>
<td>Yintang, Zi Gong Xue, LI-4 (he gu), SP-10 (xue hai), SP-6 (san yin jiao)</td>
</tr>
<tr>
<td>Acupuncture after Estrogen Priming:</td>
<td>Yintang, CV-4 (guan yuan), LI-4 (he gu), SP-6 (san yin jiao), LV-3 (tai chong)</td>
</tr>
</tbody>
</table>
The results of those cycles are as follows:

- **5th Round of IVF (Estrogen Priming with Clomid Flare with Viagra):** 11 follicles retrieved, 7 fertilized, 1 – 5AA blastocyst was frozen
- **6th Round of IVF (Estrogen Priming with Clomid Flare with Viagra):** 6 follicles retrieved, 5 retrieved, 4 blastocysts frozen for PGS testing, all abnormal
- **7th Round of IVF (Estrogen Priming with Clomid Flare with Viagra):** 8 retrieved, 2 fertilized, 1 blastocyst frozen for PGS testing, normal
- **8th Round of IVF (Estrogen Priming with Clomid Flare with Viagra):** 6 retrieved, 6 fertilized, 2 blastocysts frozen for PGS testing, abnormal
- **8th Round of IVF (Estrogen Priming with Clomid Flare with Viagra):** 6 retrieved, 3 fertilized, 1 blastocyst frozen for PGS testing, abnormal
- **9th Round of IVF (Estrogen Priming with Clomid Flare with Viagra):** cancelled cycle. Follicles did not grow. Ovaries had holes and residue from previous cycles. The patient’s FSH had risen to 38 on cycle day 3. She was advised to administer birth control for 3 weeks in order to suppress her ovaries.

**Results**

At the end of the patient’s IVF cycles, only 1 normal blastocyst and 1 untested 5AA blastocyst resulted. The patient is currently undecided on whether or not she should thaw the 5AA blastocyst and have it PGS tested. She is also undecided on whether or not the best course of treatment would be to transfer the normal blastocyst and see if it

<table>
<thead>
<tr>
<th>Acupuncture during stimulation:</th>
<th>Yintang, Zi Gong Xue, ST-36 (zu san lǐ), SP-6 (san yin jiao), KI-3 (tai xi)</th>
</tr>
</thead>
</table>
resulted in a viable pregnancy. If a pregnancy did not result, the patient is thinking of consulting with a new reproductive endocrinologist to proceed with additional IVF cycles to bank embryos.

Discussion

According to Lyttleton, the TCM treatment of a woman that has responded poorly in previous IVF cycles should be focused on ovarian function and egg quality. (8) This is achieved by strongly reinforcing Kidney jing, yin and blood over a period of 6 months or more. Unfortunately, this patient did not allow herself a period of 6 months of TCM treatment. She also was advised to proceed with several, back-to-back IVF cycles without allowing her body and hormones to recover and reset. The patient was also forbidden to take Chinese herbs by her reproductive endocrinologist. Chinese herbs are perceived as a contraindication during in vitro fertilization cycles since their effects on gonadotropins are unknown. Currently, there have been no formal peer-reviewed, randomized controlled trials combining Chinese herbs and IVF in the West. One retrospective analysis abstract showed an improvement in fertilization rates in patients over 35 years undergoing a fresh IVF/ICSI cycle. It also showed increased implantation rates in frozen cycles for ages 35-39. Participants received a combination of at least three acupuncture treatments and Chinese herbs, both of which were prescribed based on TCM differential diagnosis. (15) The addition of Chinese herbs may have allowed the patient to produce more high quality embryos without having to resort to 9 IVF cycles.

Case Study #2: Whole Systems TCM Alone
History

A 43-year-old woman had been trying to get pregnant for 10 years. She had experienced four failed rounds of IUI and had a history of three miscarriages. She took oral contraceptives for three years in her late 20’s. Work and personal stress were high, and she had a history of sexual abuse. During times of high stress, such as during work deadlines, she experienced anxiety and had difficulty sleeping. On average, she woke two to three times during the night, and sometimes was unable to go back to sleep. She had a history of irregular bowel movements, with only two per week, but probiotics had recently made her more regular, with one bowel movement per day. She had suffered from episodic hypochondriac pain for two years, on the left side below the breast.

Her menstrual cycles were 32 days long on average, and she bled for five days with bright red blood and clots. Her dysmenorrhea led her to take ibuprofen every cycle. She reported getting very emotional and sensitive the week before period, and experienced breast tenderness before her period. She also suffered from low back pain during her period. She came in with a polyp and two fibroids, which the reproductive endocrinologists said did not impact her fertility. She was ovulating normally, had a normal endometrial lining, had normal quality eggs, and her hormone levels were within normal range. She was told by her reproductive endocrinologist that everything was normal, but that she was part of 3% of the population with unexplained infertility. Her husband also had normal sperm volume and motility.
She had a history of using alcohol to deal with her childhood trauma. When she first came in, she reported drinking socially. She also reported occasionally drinking coffee, and said that if she drank too much coffee, she had burning pain in the stomach and acid reflux. Her appetite was low when she first came in, especially in the morning. She usually skipped breakfast and said she often forgot to eat. She reported her diet as consisting of toast, sandwiches, salads, rice, chicken, and meat.

The patient felt cold, especially hands and feet. Upon her first visit, she was experiencing frequent urination, and always had to urinate in the middle of the night.

At her first visit, her pulse was slightly weak and slightly choppy. The right guan was slightly weak, the right chi was thin and weak, the left cun was slightly weak, and the left guan was bowstring and thin. Her tongue presented as pale with a slight purple hue, and the very tip was reddish. The fur was very slightly thicker than normal, and white.

**Diagnosis and Treatment**

Her TCM diagnosis was Kidney yang deficiency, qi and blood stagnation, and qi and blood deficiency. She showed very slight signs of damp accumulation, most likely related to her Spleen qi deficiency. The acupuncture treatment plan, which formed the basis of each treatment, is detailed in the table below:

**Table 4. Acupuncture protocol during the four phases**

<table>
<thead>
<tr>
<th>Phase</th>
<th>Acupuncture Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1 (during period)</td>
<td>Yintang, Fu Ke (11.24), Huan Chao (11.06), LI-4 (he gu), LV-3 (tai chong), SP-8 (di ji), Ki-3 (tai xi)</td>
</tr>
</tbody>
</table>
On occasion, this treatment plan was altered slightly, depending on her pulse, tongue, and symptoms.

The first formula she was prescribed addressed the Kidney yang deficiency, qi and blood stagnation, qi and blood deficiency, and slight damp accumulation, and included *Gui Zhi, Fu Ling, Tao Ren, Mu Dan Pi, Chi Shao, Niu Xi, Xiang Fu, Pei Lan, Yan Hu Suo, Dang Gui, Bai Zhu, Du Zhong, Ba Ji Tian, Rou Gui.*

The patient had excellent patient compliance. She also had her polyp surgically removed one month after her first acupuncture visit. She received acupuncture weekly and took herbs in extract form three times per day. After three months of weekly
acupuncture treatments and daily herbs, many of her symptoms had improved. She was going to bed earlier, getting more hours of sleep per night, had improved her diet to include more healthy, regular meals. Her new routine also included regular exercise and meditation, both of which helped with her stress level and her sleep. She was waking in the middle of the night less often, her menses were less painful, and she was seeing fewer clots in her menstrual blood. She stopped consumption of alcohol and coffee. She reported lower stress levels and said her hypochondriac pain was less frequent. She lost seven pounds of extra weight. She still experienced frequent urination and still urinated once during the night, but went back to sleep more quickly when she woke to urinate.

At the beginning of month four, the treatment plan shifted, since the progress she had made showed signs that pregnancy was becoming more feasible. Around this time, her pulse had become less choppy and her left guan was significantly less bowstring. Her tongue was also less purple. Many of her excess and stagnation signs had resolved, but many of the deficiency signs remained. Her right chi was still weak. The acupuncture treatment plan which began at this time follows.

Table 5. Acupuncture protocol starting at month four of treatment

<table>
<thead>
<tr>
<th>Phase</th>
<th>Acupuncture Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1 (during period)</td>
<td>Yintang, Fu Ke (11.24), Huan Chao (11.06), Ling Gu (22.05), LV-3 (<em>tai chong</em>), KI-3 (<em>tai xi</em>)</td>
</tr>
</tbody>
</table>
Two herbal formulas were prescribed. Formula A was to be taken at the full dose, three grams three times per day, during all weeks except the week of menstruation. While menstruating, she was instructed to take 2 grams of formula A and 1 gram of formula B, to more effectively move blood. These two formulas are detailed below:

**Formula A**

_Tu Si Zi, Du Zhong, Ba Ji Tian, Gou Qi Zi, Shu Di, Dang Gui, Bai Shao, Chuan Xiong, Huang Qi, Bai Zhu, Fu Ling, Xiang Fu, Shan Yao, Shan Zhu Yu_

**Formula B (to be added to Formula A during week of period)**

_Niu Xi, Yan Hu Suo, Dan Shen_

In the sixth month of treatment, she had gone one month without experiencing hypochondriac pain and her periods were averaging 30 days instead of 32. She was eating soups, more vegetables, meat, more cooked foods, less cold food, and less bread. With the avoidance of bread in general, she noticed when she did eat bread she felt bloated and sluggish. Her menstrual cramps had become mild, and were absent for one menstrual cycle. She felt less emotional sensitivity before her period. Though present, her menstrual clots were fewer and smaller. Her libido had also increased.

<table>
<thead>
<tr>
<th>Week 2 (week after period)</th>
<th>DU-20 (bai hui), Yintang, Fu Ke (11.24), Huan Chao (11.06), Zi Gong Xue, ST-36 (zu san li), SP-6 (san yin jiao), KI-3 (tai xi)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 3 (week of ovulation)</td>
<td>DU-20 (bai hui), Yintang, Fu Ke (11.24), Huan Chao (11.06), CV-4 (guan yuan), ST-36 (zu san li), SP-6 (san yin jiao), KI-7 (fu liu)</td>
</tr>
<tr>
<td>Week 4 (week before period)</td>
<td>DU-20 (bai hui), Yintang, Fu Ke (11.24), Huan Chao (11.06), KI-9 (zhu bin)</td>
</tr>
</tbody>
</table>
Results

By month seven of treatment, she reported that all her symptoms related to her menstrual cycle were gone, including menstrual cramps, low back pain, breast tenderness, and emotional sensitivity. It was during this month that she conceived naturally. She continued weekly acupuncture treatments throughout her pregnancy, enjoyed a healthy pregnancy, and birthed a healthy baby girl.

Discussion

When the patient first came in for treatment, it was evident that the effects of her advanced maternal age were greatly compounded by her habits, lifestyle, and diet. Her signs and symptoms showed several deficiency and excess conditions that contribute to infertility. She presented with the excess patterns of both qi and blood stagnation. The qi stagnation was demonstrated with her bowstring left guan pulse, her breast tenderness before menstruation, and her hypochondriac pain. The blood stagnation was evident from her dysmenorrhea, menstrual clots, the purple hue to her tongue, and the fact that her pulse was slightly choppy overall. Qi and blood stagnation can impact the release of the egg, the mobility of the egg through the fallopian tubes, disrupt hormone balance, impair proper shedding of the endometrium, and restrict blood flow to the ovaries and uterus. Her excess signs and symptoms resolved fairly quickly, and after three months of regular treatment, the focus shifted to address the underlying deficiency that remained when the excess patterns were corrected. Her deficiency patterns included Kidney yang deficiency, as well as qi and blood deficiency. The Kidney yang deficiency
presented with frequent urination, low back pain, her general feeling of cold, and at least in part her long menstrual cycles. Her thin, weak right guan confirmed these signs of Kidney yang deficiency. The Kidney is thought to dominate reproduction, and proper balance of Kidney yang and yin is essential to reproductive function. There are both yin and yang aspects of jing, and if either are deficient, the jing is impacted. If the Minister Fire, the yang aspect of the jing, is deficient, there lacks the catalyst needed to transform and activate Water, which is unable to fertilize or nourish the egg. (5)

Her qi and blood deficiency further impeded her ability to conceive. Qi and blood deficiency contributed to her long periods, poor appetite, occasional fatigue, and possibly impaired follicular development. Her anxiety during periods of stress was further weakening the Spleen qi. Sufficient qi is needed for mobility of the egg from the ovary to the uterus, and sufficient Blood is necessary to produce a thick enough uterine lining for successful implantation.

The two imbalances that probably had the greatest impact on her ability to conceive were the Kidney yang deficiency and the blood stagnation. These two combined can make release of the egg, mobility of the egg down the fallopian tube, and implantation more difficult. Although the Kidney yang deficiency was not fully resolved by the time she conceived, the blood stagnation had been corrected and the Kidney yang was augmented, which together provided enough of a correction to allow for conception.
The success of this case can be attributed to the stellar compliance of the patient. She not only came for weekly treatments for seven months prior to conception and took herbs three times daily for the full seven months, but also made substantial changes to her lifestyle, habits, and diet. Her commitment to come in for treatments and dedicate time and energy to making changes in her life had profound effects on her overall health as well as her ability to conceive. This case is a testament to not only the power of Chinese medicine to treat unexplained fertility, but also to the importance of patient compliance.

Conclusion

Assisted reproductive technology is the current standard of care for women diagnosed with advanced maternal age and diminished ovarian reserve. ART treatments such as IUI and IVF are designed to hasten the time of conception and patients are placed on high doses of ovarian stimulation medication in order to maximize the number of potential eggs. However, in this comparative review, the whole systems TCM approach allowed the patient to conceive naturally by improving hormone levels and egg quality, while the IVF approach was aggressive without positive results. Presently, since treatments to slow down the progression of ovarian aging do not exist, many young women are seeking cryopreservation of eggs and/or embryos for future use. However, cryopreservation of eggs does not address a crucial issue in the process of a healthy conception; the male partner’s role. Statistically in relationships, the male partner is older than the female, therefore the impact of the male partner’s age on the role of healthy conception in female patients diagnosed with AMA and DOR warrants further
investigation and study.

References


