

Treatment of Female Infertility A New Approach in Chinese Medicine

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1. Overview

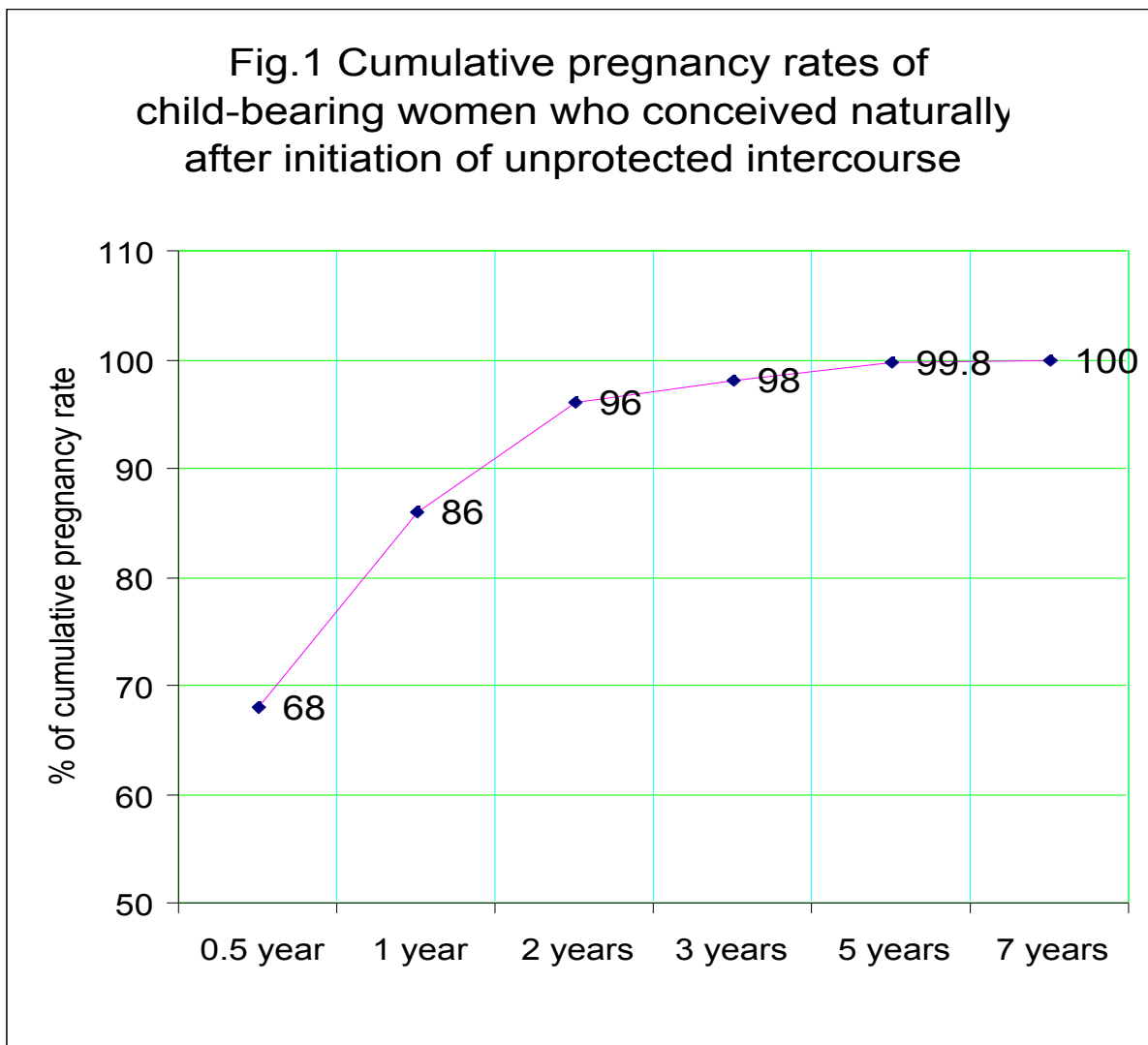
The following synopsis presents a new approach in treating female infertility developed by Dr. Samuel Wang at Acupuncture Herbal Center, San Rafael, California. The paper in its entirety was awarded Outstanding Achievement at the Fifth World Conference of Traditional Medicine in 2000. Dr. Wang is the founder of the latest microcosmic theory of Chinese medicine. In light of applying the philosophy of Chinese medicine to both microcosmic and macrocosmic views, he has integrated ancient Chinese medicine and the most advanced Western medical technologies in the field of female infertility. This new approach has succeeded in many difficult cases that had failed to respond to either conventional Western medicine or classical Chinese medicine. According to this new approach, the diagnostic procedure for female infertility first follows Western medical diagnosis of disease, and then each Western disease is subdivided into both microcosmic and macrocosmic patterns of Chinese medicine. For the different microcosmic and macrocosmic patterns, Dr. Wang has established a series of therapeutic protocols, including his unique herbal formulas and triple needle technique. His clinical studies show that this innovative method most effectively treats unexplained infertility in Western medicine, simple ovulatory dysfunction, luteal deficiency, cervical factors and immuno factors respectively. It can also effectively treat female infertility caused by endometriosis, polycystic ovaries, intrauterine factors, premature ovarian failure and obstruction of Fallopian tubes. Dr. Wang has opened a new avenue to the successful treatment of female infertility.

2. Introduction

American Couples who experience difficulty in conception are estimated to be as high as 1 in 6, and among these infertile couples, female factors account for more than 60 to 70 percent.

Female infertility is usually defined as failure to achieve pregnancy after one to two years of regular unprotected intercourse, in a woman during her reproductive age, with her male partner's normal reproductive function. In fact, the concept of female infertility may be confusing. Of child-bearing women who conceived naturally, after the initiation of unprotected regular intercourse, 68 percent achieved pregnancy within six months, 86

percent within one year, 96 percent within two years, 98 percent within three years, 99.8 percent within 5 years and an additional 0.2 percent between the fifth and seventh years according to some reports (Fig.1). Therefore, the optimal length of time for the definition of infertility is still controversial. Dr. Wang's opinion is that this time period should be set at two years for younger women prior to age 30 and at one year for women older than 30, so that patients can receive treatment without delay in case they are unable to conceive naturally. If an asymptomatic woman aged 30 or older does not conceive one year after trying to get pregnant, she should be considered clinically infertile and should consult a fertility specialist. However, if she is under 30, she may wait for two years before receiving her fertility evaluations. Women with gynecological symptoms such as dysmenorrhea, serious menstrual cramps and obscure pelvic pain, should consult their gynecologists as soon as possible



3. Female Reproduction in Classical Chinese Medicine

The Yellow Emperor's Classic of Internal Medicine has been the leading literature of Chinese medicine since it was first completed approximately 2,500 years ago. This classic believes that female fertility is associated with the Kidney, the Conception meridian and the Chong meridian, which are necessary for female reproduction. It also describes that a woman's physiological changes take place every seven years.

At age 7, a girl has sufficient Qi in her Kidney. Her teeth begin to change and her hair grows longer.

At 14, her Conception meridian begins to circulate and her Chong meridian becomes strong. As Tiankui arrives and menstruation starts, conception is possible.

At 21, when her Kidney Qi has reached the highest peak, her wisdom teeth and body have fully developed.

At 28, her tendons and bones are strong, hair has reached full length, the body continues to flourish, and she remains in the most fertile period in her life.

At 35, her face begins to wrinkle and the hair thins when the energy in the Yang Ming meridian declines.

At 42, as the Qi and Blood decrease substantially in the three Yang meridians that branch to her face, her face looks more wrinkled and her hair begins to turn gray.

At 49, when her Conception and Chong meridians become deficient, her Tiankui exhausts, menstruation ceases, and fertility terminates.

In fact, due to the cultural differences and the improvement in both nutrition and living conditions, women today, on the average, start puberty one to three years earlier, and menopause two to three years later than those in ancient times. Generally, today's female fertility initiates its downturn between the ages of 35 and 38, and undergoes a rapid decline between 43 and 46.

Although there are minor differences between modern and ancient women, the basic ideas about the physiology of female reproduction in *The Yellow Emperor's Classic of Internal Medicine* are still the important guidelines in today's diagnosis and treatment of female infertility in Chinese medicine. Any disturbances of the above physiological process may result in infertility.

4. Diagnosis of Female Infertility According to Microcosmic Method of Chinese Medicine

Classical Chinese medicine perceives the human body only in the macrocosmic view, so it assumes that the microcosmic conditions in the human body are always compatible

with the macrocosmic ones. However, it cannot explain the fact that under certain circumstances, the differences do exist between microcosmic and macrocosmic conditions. Since modern Western medicine usually emphasizes the pathological changes in microcosmic view, classical Chinese medicine is dissociated with the achievements in modern Western medical sciences. The issue is still related to the research methodology of Chinese medicine. Dr. Wang has developed a new research methodology of Chinese medicine: applying the unique dialectical philosophy of Chinese medicine in microcosmic view to the achievements in modern Western medicine. He has discussed this new research methodology in detail in his article, *The Research Methodology of Chinese Medicine*. In light of this new research methodology, Dr. Wang has successfully established his innovative microcosmic theory of Chinese medicine, which enables Chinese medicine to be naturally integrated with modern Western medical sciences.

Chinese medicine is essentially characterized by its dialectical concept, without which it is not Chinese medicine. However, microcosmic theory or microcosmic method of Chinese medicine is different from the classical Chinese medicine in some aspects. Microcosmic method of Chinese medicine not only inherits the essence of the methodology of classical Chinese medicine, but also absorbs the great achievements in modern Western medicine. Since its essence is not changed, microcosmic method of Chinese medicine is still in the category of Chinese medicine, except for its acceptance of modern medical sciences as well as its application of dialectical philosophy of Chinese medicine to both macrocosmic and microcosmic views.

In microcosmic method of Chinese medicine, the pattern diagnosis for female infertility is still based on Eight Entities and Internal Organs, but there are patterns in both macrocosmic and microcosmic aspects.

The Eight Entities for female infertility are the analysis and classification of Yin and Yang, Exterior and Interior, Cold and Heat, Deficiency and Excess, to determine the overall nature of the disease. However, in microcosmic method of Chinese medicine, the Eight Entities are subdivided into both macrocosmic and microcosmic ones. Yin and Yang are the general opposite sides in nature: Exterior, Heat and Excess belong to Yang, while Interior, Cold and Deficiency to Yin. Hyper-functions are Yang and hypo-functions Yin. Yin and Yang are the most essential dialectics in Chinese medicine, opposing and unifying each other. When Yin and Yang are harmonized both microcosmically and macrocosmically in a woman's body during her reproductive years, her Chong and Conception meridians will function properly and she will not have difficulty conceiving.

However, when Yin and Yang are out of balance, Yin or Yang syndrome will occur. Yin syndrome refers to the decline of Yang Qi in the body or the excessive Yin Qi, demonstrating Cold in nature or feebleness in the body's response. Yang syndrome means Yang and Qi Excess, suggesting Heat, Excess in nature or exorbitant body response to the pathogenic factors. In Yang syndrome, the vital Qi is usually intact. Female infertility is generally divided into these two main categories: Yin syndrome versus Yang syndrome. According to microcosmic method, sometimes, both Yang syndrome and Yin syndrome may occur in the same woman's body at the same time, for

example, microcosmic view shows Yang syndrome while macrocosmic view demonstrates Yin condition, or vice versa.

The Exterior and Interior indicate the location of pathological changes and the severity of disease. Conditions located superficially are considered to be Exterior pattern, which is usually less severe. However, conditions originating from the viscera and the pathological changes deeply located in the body belong to Interior pattern, which is usually more severe. Unfortunately, female infertility is almost always classified as Interior either in macrocosmic or microcosmic views.

The Cold and Heat are two aspects to differentiate the nature of a disease. *The Yellow Emperor's Classic of Internal Medicine* points out that "Excessive Yin leads to Cold, and excessive Yang to Heat." and "Yin Deficiency generates Heat, and Yang Deficiency Cold."

The Deficiency and Excess are two opposites to measure the strength of the defense mechanisms of the body, as well as the vital Qi. *The Yellow Emperor's Classic of Internal Medicine* also states "Exuberant pathogenic factors result in Excess pattern, while excessive consumption leads to Deficiency pattern." Deficiency pattern is mostly seen in those patients with insufficient Vital Qi. However, the stagnation of pathogenic factors of Chinese medicine in meridians and collaterals or in internal organs is in the category of Excess. So is Qi and Blood stagnation. All the above stagnations are almost always associated with Excess in microcosmic view, irrespective of the macrocosmic projection that may show either Excess or Deficiency.

Because female infertility is almost always Internal conditions, Eight Entity pattern differentiations for female infertility only leave Cold versus Heat and Deficiency versus Excess. Classical Chinese medicine identifies four different combinations for female infertility: Excess Cold, Deficiency Cold, Excess Heat and Deficiency Heat respectively, as it views the Eight Entities macrocosmically only. However, Microcosmic method of Chinese medicine perceives the Eight Entities in both macrocosmic and microcosmic views, so it is much more complicated than the way that classical Chinese medicine perceives the Eight Entities. Theoretically, microcosmic method may recognize up to 16 combinations of Eight Entity patterns for female infertility, i.e., 4 (microcosmic Eight Entity patterns) x 4 (macrocosmic Eight Entity patterns) = 16 (combinations). Clinically, for female infertility, the most common forms of Eight Entities in microcosmic method of Chinese medicine are both microcosmic and macrocosmic Deficiency Heat as well as both microcosmic and macrocosmic Deficiency Cold, then microcosmic Excess Cold.

Microcosmic Excess Heat may be seen in acute or chronic pelvic inflammation in women. Furthermore, it is not uncommon that an infertile woman may demonstrate Excess and/or Heat in microcosmic view, but Deficiency and/or Cold in macrocosmic projection simultaneously.

Pattern diagnosis of internal organs is also important in evaluating female infertility. However, only three organs, the Kidney, the Liver and the Spleen, are most directly involved in female infertility.

The Kidney is essential to female reproduction. The Kidney is the source of congenital Essence and the root of life. It has two sides: Kidney Yin and Kidney Yang, which are the most important material and function of the female reproductive system. The Yin and Yang of the Kidney should not only be prosperous, but also harmonized. For Kidney syndrome, there are several pathological patterns: Kidney Yang deficiency, Kidney Yin deficiency with excess Yang, combination of both Kidney Yin and Yang deficiency, Kidney Qi deficiency, or Kidney Qi and Yin deficiency. Any of the above patterns in either macrocosmic or microcosmic views, or in both, may result in malnutrition of Chong and Conception meridians as well as in Qi and Blood stagnation, subsequently causing female infertility.

The Liver stores Blood, regulates the normal flow of Qi and Blood, and coordinates the functions of the viscera. Emotional distress such as anger and depression impairs the Liver by stagnating the Live Qi. Persistent Liver Qi stagnation will eventually result in Blood stagnation. Blood stagnation due to stagnation of Liver Qi may be one of the etiologies of female infertility in Chinese medicine. Clinically, Liver Qi stagnation is so common that almost every infertile woman suffers from it in different degrees either microcosmically or macrocosmically.

The Spleen is the source of acquired Essence as well as the source of Qi and Blood, supplying nutrients to the Five Viscera, the Six Hollow Organs and the female reproductive system. The Chong meridian also obtains Yuan Qi and Blood from Yangming Stomach meridian because they are connected to each other. When the Spleen and the Stomach are functioning properly, the Essence is sufficient, then Qi and Blood will be abundant. Therefore, a healthy Spleen will sufficiently nourish the Chong and Conception meridians, ensuring the basic requirements for both conception and gestation. If the Spleen is deficient, it cannot properly transport wastewater, resulting in Damp accumulation. Sooner or later, Excessive Damp will become Phlegm, which will subsequently obstruct the Chong and Conception meridians as well as the female pelvic organs — uterus, Fallopian tubes and ovaries. In microcosmic view of Chinese medicine, this process is the pathogenesis of uterine fibroids, endometriosis, polycystic ovaries, ovarian cysts and certain types of dysmenorrhea. Furthermore, because of the above process, the lack of acquired Essence may be the direct cause of female infertility. The Deficiency in the Spleen is usually a macrocosmic condition in female infertility, but the consequences of Spleen Deficiency, such as the accumulation of Damp and Phlegm, can be a microcosmic condition. Evidently, macrocosmic and microcosmic conditions can influence each other.

In addition to complete physical examinations, modern Western medicine employs various special diagnostic techniques (sonogram, hysterosalpingogram, endoscopy and laboratory tests) to make a Western diagnosis for female infertility. The common causes of female infertility in modern Western medicine include simple ovulatory dysfunction,

luteal deficiency, Fallopian tube obstruction, cervical factors, immunological factors, uterine fibroids, other intrauterine factors, endometriosis, and premature ovarian failure. Clinically, about 10-18% of infertile women may fail to have a positive Western medical diagnosis even though they have gone through all the sophisticated Western medical examinations available. In Western medicine, these patients belong to the category of unexplained infertility.

In order to obtain the best treatment results from Chinese herbs and acupuncture, the integration of both Chinese medical pattern diagnosis and Western medical diagnosis of disease is extremely important. According to microcosmic method of Chinese medicine, the diagnostic procedure is first based on the modern Western medical diagnosis of disease, and then each Western disease is subdivided into both microcosmic and macrocosmic patterns of Chinese medicine. When Western medicine is unable to reach a definite diagnosis, such as unexplained infertility, microcosmic method of Chinese medicine can still make a pattern diagnosis in either macrocosmic or microscopic view.

Generally, in the macrocosmic aspect, the microcosmic method of Chinese medicine is quite similar to classical Chinese medicine, emphasizing the coordination of the whole body. However, in the microcosmic aspect, this method is focused on the local pathological changes or on the functional disturbances of a specific system of the body. Clinically, tongue, pulse and facial complexions of a patient usually reflect the macrocosmic patterns of Chinese medicine, but the individual Western medical diseases mostly correlate with the microcosmic patterns of Chinese medicine. Accordingly, in the same patient, the microcosmic patterns of Chinese medicine may not always be compatible with the macrocosmic ones. For example, endometriosis or polycystic ovary fits in Blood stagnation and Phlegm, definitely indicating Excess pattern in microcosmic view, but the pulse, tongue and facial complexion of the patient with endometriosis or polycystic ovary may show Deficiency pattern as long as the patient's macrocosmic conditions are deficient.

5. Treatment of Female Infertility Using Microcosm Method of Chinese Medicine

Since the microcosmic patterns of Chinese medicine are connected to certain Western pathological changes or Western functional disturbances as mentioned previously, the treatment principles of Chinese medicine for female infertility are discussed below in accordance with the Western terminology of diseases.

Simple Ovulatory Dysfunction

Simple ovulatory dysfunction is one of the most common causes of female infertility. In microcosmic method of Chinese medicine, the Kidney regulates the reproductive

functions through its axial system: Kidney — Chong and Conception meridians. This is similar to the concept of modern Western medicine that physiological functions of reproduction are regulated by the central axis: hypothalamus-hypophysis-ovary-uterus.

In modern Western reproductive pathophysiology, the dysfunctions of the axial system of hypothalamus-hypophysis-ovary-uterus often disturb the ovulation. The periodical change of serum estrogen level, mainly Estradiol (E2) is the key in regulating ovulatory cycle. If E2 level is not high enough to trigger the surge of LH secretion before ovulation, ovulatory dysfunction occurs. Anovulatory patients are categorized into two main groups: low estrogen level group and relatively high estrogen level group. In microcosmic view of Chinese medicine, the former group is usually associated with Kidney Yang Deficiency, while the latter with Kidney Yin Deficiency. In addition to Kidney Yin Deficiency, many anovulatory patients with relatively high estrogen levels manifest microcosmic Liver Qi congestion. In general, anovulatory patients with high estrogen levels should be treated primarily by both nourishing the Kidney Yin and soothing the Liver, whereas those with low estrogen levels by warming the Kidney Yang.

For kidney Yin deficiency and/or Liver congestion, Dr. Wang has developed the *Yin Essence* formula: Shengdihuang (Radix Rehmanniae Glutinosae), Shoudihuang (Radix Rehmanniae Glutinosae Conquिताe), Shanzhuyu (Fructus Corni Officinalis), Shanyao (Radix Dioscoreae Oppositae), Zexie (Rhizoma Alismatis Plantago-aquaticae), Danpi (Cortex Moutan Radicis), Fuling (Sclerotium Poriae Cocos), Tusizi (Semen Cuscutae), Goujizi (Fructus Lycii Chinensis), Nuzhenzi (Fructus Ligustri Lucidi), Hanliancao (Herba Ecliptae Prostratae), Shouwu (Radix Polygoni Multiflori), Yujin (Tuber Curcumae), Danshen (Radix Salviae Miltiorrhizae), Baishao (Radix Paeoniae Lactiflorae), Suanzaoren (Semen Ziziphi Spinosaе), Zhimu (Radix Anemarrhenae Asphodeloidis), Ziheche (Placenta), Chenpi (Pericarpium Citri Reticulatae) and Baishu (Rhizoma Atractylodis Macrocephalae). There is a concentrated capsule form for this formula. Each capsule contains 0.5 gram concentrated herbal powder equivalent to 2.5 grams of raw herbs. For kidney Yang deficiency, he commonly uses the *Yang Essence* formula: Tusizi (Semen Cuscutae), Yinyanghuo (Herba Epimedii), Bajitian (Radix Morindae Officinalis), Goujizi (Fructus Lycii Chinensis), Shouwu (Radix Polygoni Multiflori), Nuzhenzi (Fructus Ligustri Lucidi), Danpi (Cortex Moutan Radicis), Wuweizi (Fructus Schisandrae Chinensis), Fupenzi (Fructus Rubi), Huangqi (Radix Astragali), Renshen (Radix Ginseng), Niuxi (Radix Achyranthis Bidentatae), Yujin (Tuber Curcumae), Lujiaoshuang (Cornu Cervi Cegelatinatum), Cheqianzi (Semen Plantaginis), Hanliancao (Herba Ecliptae Prostratae), Roucongrong (Herba Cistanches), Duzhong (Cortex Eucommiae Ulmoidis) and Chenpi (Pericarpium Citri Reticulatae). For this formula, there is also a concentrated capsule form. Each capsule contains 0.5 gram concentrated herbal powder equivalent to 2.5 grams of raw herbs. *Bupishen* formula is also used for patients with mild Yang deficiency, particularly for those whose potential ovulation is unpredictable, because it can be safely used even after conception. *Bupishen* is also applicable for the prevention of miscarriage.

Herbal Cyclic Therapy

Herbal cyclic therapy is a non-hormonal procedure to recover ovulation in a natural way. It synchronizes different Chinese herbal formulas with different phases of the menstrual cycle according to the microcosmic method of Chinese medicine. In this therapy, menstrual cycle is divided into four phases: proliferative, ovulatory, luteal and menstrual phases. The strategy of this therapy is based on the physiological changes of the female menstrual cycle in microcosmic view of Chinese medicine, irrespective of the pulse and tongue patterns that usually reflect the macrocosmic aspect. It emphasizes nourishing the Kidney Yin at the proliferative phase, activating the Collaterals during the ovulatory phase, warming the Kidney Yang at the luteal phase, and promoting the Blood circulation in the meridians during the menstrual phase. Therefore, it strengthens Kidney Yin and Yang, facilitates the smooth transaction between Yin and Yang and regulates the Chong and Conception meridians. In the other words, in Western medicine, it improves the function of axial system of hypothalamus-hypophysis-ovary-uterus.

The proliferative phase usually ranges from days 4 to 14 in a typical 28-day menstrual cycle. The microcosmic view of Chinese medicine indicates that this phase is the recovering and vegetating stage for Yin and Blood. Under the influence of Kidney Qi, the uterus is filled with Yin Essence and Blood. *Culuanpaotang* (Decoction for Promoting Follicle Development) is used to nourish Kidney Yin. The above formula contains Shengdihuang (Radix Rehmanniae Glutinosae), Zexie (Rhizoma Alismatis Plantago-aquaticae), Fuling (Sclerotium Poriae Cocos), Danggui (Radix Angelicae Sinensis), Danpi (Cortex Moutan Radicis), Baishao (Radix Paeoniae Lactiflorae), Shanzhuyu (Fructus Corni Officinalis), Nuzhenzi (Fructus Ligustri Lucidi), Shanyao (Radix Dioscoreae Oppositae), Ziheche (Placenta) and Sharen (Fructus seu Semen Amomi). *Yin Essence* formula may be applied during this stage as well.

Ovulatory phase is approximately on the 14th day of menstrual cycle. In microcosmic view of Chinese medicine, during this comparatively short period, Yin Essence of the Kidney is furthermore enriched and transformed under the effect of Kidney Yang. This is the key stage when Chinese herbs are used to regulate the menstrual cycle. Generally 3 days prior to ovulation (the 11th day of menstrual cycle), *Pailuantang* (Decoction for Promoting Ovulation) is given for three consecutive days to invigorate the Kidney to activate the collaterals and to promote the ovulation. This prescription includes the following herbs: Chuanduan (Radix Dipsaci), Roucongrong (Herba Cistanches), Tusizi (Semen Cuscutae), Bajitian (Radix Morindae Officinalis), Nuzhenzi (Fructus Ligustri Lucidi), Niuxi (Radix Achyranthis Bidentatae), Lulutong (Fructus Liquidambaris Taiwanianae), Wangbuliuxing (Semen Vaccariae Segetalis), Xiangfu (Rhizoma Cyperi Rotundi), Shoudihuang (Radix Rehmanniae Glutinosae Conquिताe), Chongweizi (Semen Leonuri Heterophylli), Chizhao (Radix Paeoniae Rubra), Danggui (Radix Angelicae Sinensis), Jelan (Herba Lycopi Lucidi), Chuanxiong (Radix Ligustici Wallichii), Honghua (Flos Carthami Tinctorii) and Shanyao (Radix Dioscoreae Oppositae).

Luteal phase follows ovulation and ends right before the next cycle. The microcosmic view of Chinese medicine suggests that during this period, due to the sufficient Yin,

Yang gradually rises, Kidney Qi progressively develops and the uterus becomes warmer. All these changes prepare the implantation of the fertilized egg and the growth of the embryo. During ovulatory phase, the sperm penetrates into the ovum after the rupture of the follicle. Under the influence of Kidney Yang, the internal organs' Qi and Blood accumulate at the Chong and Conception meridians in order to nourish the embryo. If there is no conception, Qi and Blood of the internal organs flow to the Sea of Blood and menstruation begins. After ovulation, the elevation of the basal body temperature can be used as an indicator of the rising of the Yang. The treatment at this time is to warm the Kidney Yang with *Yang Essence* or with an herbal prescription including Tusizi (Semen Cuscutae), Lujiaoshuang (Cornu Cervi Cegelatinatum), Shanzhuyu (Fructus Corni Officinalis), Shoudihuang (Radix Rehmanniae Glutinosae Conquिताe), Chuanduan (Radix Dipsaci), Roucongrong (Herba Cistanches), Dangshen (Radix Codonopsis Pilosulae), Huangqi (Radix Astragali), Shanyao (Radix Dioscoreae Oppositae), Baishu (Rhizoma Atractylodis Macrocephalae), Ajiao (Gelatinum Asini) and Sharen (Fructus seu Semen Amomi). For this phase, Dr. Wang also uses a concentrated herbal formula named *Bupishen*, which comprises Dazao (Fructus Zizyphi zjujubae), Huangqi (Radix Astragali), Dangshen (Radix Codonopsis Pilosulae), Shanyao (Radix Dioscoreae Oppositae), Tusizi (Semen Cuscutae), Sangjisheng (Ramus Loranthi seu Visci), Shengdihuang (Radix Rehmanniae Glutinosae), Shoudihuang (Radix Rehmanniae Glutinosae Conquिताe), Sharen (Fructus seu Semen Amomi), Ajiao (Gelatinum Asini), Baishu (Rhizoma Atractylodis Macrocephalae), and Chuanduan (Radix Dipsaci).

The menstrual phase usually lasts 3 to 5 days. Menstruation symbolizes the beginning of a new cycle. In microcosmic view of Chinese medicine, during this phase, excessive Yang now changes to Yin. Because of the gradual accumulation of Yang Qi, the Sea of Blood is full. Kidney Yang transports menstruation and a new menstrual cycle begins. If the old menstruation is not drained completely, new Blood and new endometrium cannot grow properly. Therefore, the key point of treatment during this period is to regulate menstruation by activating the flow of Qi and promoting the circulation of Blood. Decoction for Regulating Menstruation is administered. It includes the following herbs: Danggui (Radix Angelicae Sinensis), Chishao (Radix Paeoniae Rubra), Shoudihuang (Radix Rehmanniae Glutinosae Conquिताe), Chuanxiong (Radix Ligustici Wallichii), Taoren (Semen Persicae), Honghua (Flos Carthami Tinctorii), Xiangfu (Rhizamo Cyperi Rotundi), Chinpi (Pericarpium Citri Reticulatae), Zelan (Herba Lycopi Lucidi), Nuxi (Radix Achyranthis) and Yimucao (Herba Leonuri Heterophylli).

The following table is a summary of herbal cyclic therapy according to microcosmic method of Chinese medicine.

Herbal Cyclic Therapy (Based on 28-Day Menstrual Cycle)

Phases in Menstrual Cycle:	Proliferative Phase	Ovulatory Phase	Luteal Phase	Menstrual Phase
Days in Menstrual Cycle:	4 to 14	Day 14	14 to 28	1 to 5
Microcosmic Pattern of Chinese medicine:	Rise of the Yin, esp. Kidney Yin	Transformation between Yin & Yang	Rise of the Yang, esp. Kidney Yang	Drainage of the Sea of Blood
Treatment Principles:	Nourishing the Kidney Yin	Activating the Collaterals	Strengthening the Kidney Yang	Promoting Blood circulation
Herbal Formulas:	Yin Essence, decoction for promoting follicles	Decoction for promoting ovulation, starting prior to the ovulation	Bupishen and other formulas	Decoction for regulating menstruation

Clinical Applications of Zhuyuntang

Zhuyuntang (Decoction for Promoting Pregnancy) formula consists of the following Chinese herbs: Muxiang (Radix Saussureae seu Vladimiriae), Danggui (Radix Angelicae Sinensis), Qianghuo (Rhizoma et Radix Notopterygii), Yimucao (Herba Leonuri Heterophylli), Baishao (Radix Paeoniae Lactiflorae), Chaihu (Radix Bupleuri), Xiangfu (Rhizoma Cyperi Rotundi), Ziheche (Placenta), Tusizi (Semen Cuscutae), Goujizi (Fructus Lycii Chinensis), Shengdihuang (Radix Rehmanniae Glutinosae), Hanliancao (Herba Ecliptae Prostratae), Lujiaoshuang (Cornu Cervi Cegelatinatum), Baishu (Rhizoma Atractylodis Macrocephalae) and Danshen (Radix Salviae Miltiorrhizae).

Analysis of *Zhuyuntang*: Chaihu has the function of soothing the Liver and eliminating its congestion. Tasting pungent, it has the effect of dispersing heat. Danggui strengthens and mobilizes the Blood, regulates menstruation and relieves menstrual cramps. Its character is warm, belonging to the Yang category. For mobilizing the Blood, it should be used in large dosages of 15 to 30 grams. For nourishing the Blood, the whole Danggui is applied. For excessive menstrual bleeding and loose bowels, cooked Danggui is recommended. Baishao nourishes the Blood and Yin energy in the Liver and Kidney. It is slightly Cold and calming. Xiangfu regulates the Qi in the Triple Warmers, especially the Liver Qi. It can normalize the menstrual cycle and relieve menstrual cramps. The character of Xiangfu is dry. Cooked Xiangfu is recommended for Blood Heat and intrauterine hemorrhage. Yimucao mobilizes the blood, regulates the menstrual cycle, nourishes the Kidney and eliminates the Damp. It is applicable for dysmenorrhea of the Heat pattern. Muxiang is the herb for the Qi of the Triple Warmers, regulating the ascent and descent of the Qi, especially the Qi of the Lower Warmer. It plays an important role in mobilizing the Qi in the Fallopian tubes, ensuring the proper function of the tubes, and facilitating the fertilization of the ovum in the tube as well as the ovum's transportation to the uterus. Qianghuo raises the Yang energy of the Governor meridian. Ziheche nourishes the Qi and Blood, strengthens the Essence and the Governor meridian, building the foundation for pregnancy. Shendihuang, Hanliangchao, Tusizi and Goujizi nourish Yin energy, especially the Kidney and Liver Yin. Shendihuang can neutralize the side effects of Chaihu, Jianghuo and Danggui, which usually hurt the Yin when used alone. Danshen has similar functions of Danggui, enhancing the circulation of the pelvic organs. Danshen also inhibits unwanted excessive immuno responses. Lujiaoshuan strengthens Yang

energy, helping the follicle to absorb Qi and Blood and promoting the maturity of the ovum.

Applications of *Zhuyuntang* according to Microcosmic Method of Chinese Medicine: For patients with a regular menstrual cycle, *Zhuyuntang* is taken 1 to 5 days after menstrual bleeding ends until 1 to 2 days after ovulation occurs. This formula has two preparations: decoction and concentrated capsule. In capsule form, each capsule equivalent to 2.5 grams of raw herbs. However, the decoction form is uniquely formulated for each individual patient's condition by adding certain herbs to the formula. For microcosmic or macrocosmic Excess Heat, Dr. Wang adds Danpi (Cortex Moutan Radicis) and Shanzhizi (Fructus Gardeniae Jasminoidis); for macrocosmic Deficiency Heat, Zhimu (Radix Anemarrhenae Asphodeloidis) and Huangbo (Cortex Phellodendri); for microcosmic or macrocosmic Excess Cold, Rougui (Cortex Cinnamomi Cassiae); for macrocosmic Deficiency Cold, Aiye (Folium Artemisiae); for microcosmic Phlegm, Chanshu (Secretio Bufonis), Chuanhoupo (Cortex Magnoliae Officinalis) and Zhike (Fructus Citri seu Ponciri); for microcosmic Blood stagnation, Taoren (Semen Persicae) and Honghua (Flos Carthami Tinctorii); for microcosmic obstruction of the Fallopian tubes, Mutong (Caulis Mutong), Lulutong (Fructus Liquidambaris Taiwanianae), Sigualuo (Fasciculus Vascularis Luffae) and Wuzhuyu (Fructus Evodiae Rutaecarpae). In addition, for microcosmic positive AsAb (anti-sperm antibody) and cervical factors, he increases the dosages of Shengdihuang and Danshen plus adding Yujin (Tuber Curcumae), Shihu (Herba Dendrobii) or Maidong (Tuber Ophiopogonis Japonici); for microcosmic positive anti-phospholipid antibody or anti-lupus antibody, increases the dosages of Baishao, Danshen and Yimuchao, plus adding Huanqin (Radix Scutellariae Baicalensis) and Yujin (Tuber Curcumae).

Rational Use of *Zhuyuntang*: If the patient has a serious underlying disease causing infertility, the first step is to treat it before *Zhuyuntang* is administered. If the patient has irregular menstrual cycles, the first step is to regulate the cycle using the herbal cyclic therapy as previously discussed. The classical gynecological textbook, *Essentials of Gynecology of Chinese Medicine* states that female infertility is mostly due to the dysfunction of the menstruation, which is usually caused by the internal injuries of the Seven Emotions and the invasion of the Six External Pathogenic Factors, or by the disturbances of the Qi and Blood and disharmony of Yin and Yang. Another classical Chinese medical textbook, *Classified Treatise on Gynecology* also explains female infertility. "When a woman is infertile, either there is damage from Six External Pathogenic Factors and Seven Internal Emotions causing disharmony of the Chong and Conception meridians, or there is generalized phlegm retention propagating to the internal organs, or there is Deficiency and Cold in the uterus, or there is Excess of Qi but Deficiency of Blood, or there is Heat hidden in the Blood, or the Spleen and Stomach are deficient and fail to nourish the Chong and Conception meridians." *Zhuyuntang* can soothe the Liver, regulate menstruation, nourish the Kidney, Liver and Blood, and harmonize the Yin and Yang. Therefore, it has the function of promoting conception.

Acupuncture Treatment of Female Infertility

Acupuncture treatment for female infertility has been well documented in classical Chinese medical literature. *A-B Classic of Acupuncture and Moxibustion (Zhen Jiu Jia Yi Jing)*, published in 282 AD, states that moxibustion to Guanyuan (CON 4) facilitates conception and can treat female infertility caused by stagnation of coagulated Blood in the Interior. *Great Compendium of Acupuncture and Moxibustion (Zhen Jiu Da Chang)* was published in Ming Dynasty (1601 AD). In this acupuncture classic, Shanyinjiao (SP 6), Zigong and Zhongji (CON 3) are needed to treat infertile women whose uterus is affected by long-standing Cold.

Dr. Wang successfully uses the following basic acupuncture points to treat female infertility: Zigong (Extra Meridian Point), Sanyinjiao (SP 6) and Taichong (LIV 3). This is also called triple needle technique. Zigong as an empirical point, has been historically used to treat various patterns of female infertility since the publication of *Great Compendium of Acupuncture and Moxibustion (Zhen Jiu Da Chang)* in 1601. According to modern anatomy, Zigong is the exact surface projection of the ovary. Therefore, microcosmic method of Chinese medicine considers Zigong the Mu point of the ovary. Shanyinjiao is the junction of three major meridians. The representing viscera of these three major meridians are Kidney, Liver and Spleen, all of which, as mentioned previously, play important roles in female fertility either microcosmically or macrocosmically. Taichong (LIV 3) is chosen as conventional point, because Liver Qi congestion almost always occurs in infertile women in either microcosmic or macrocosmic views. These three basic points are often needled bilaterally.

Other than the above basic points, there are other supplemental points to treat female infertility according to the different microcosmic or macrocosmic patterns of Chinese medicine:

Guanyuan (CON 4) and Shenshu (BL 23) are selected for Kidney Qi deficiency, and Taixi (K3) for Kidney Yin deficiency. Shenshu as the transporting point of the Kidney plays the important role in tonifying the Kidney Qi. Guanyuan located at the junction of Chong and Conception meridians has tonifying effect on Kidney Essence, and Taixi as the Original Point of the Kidney meridian can nourish the Kidney Yin. Guanyuan, Shenshu and Taixi can work for both microcosmic and macrocosmic patterns of Chinese Medicine, but Guanyuan usually has more effect on the microcosmic patterns while Shen shu and Taixi have more influence on the macrocosmic ones.

For Qi and Blood deficiency, the selection of additional points includes Guanyuan (CON 4), Qihai (CON 6), and Zusanli (ST 36). Xuehai (SP 10). Xuehai and Zhushanli tend to influence mainly on macrocosmic conditions, while Guanyuan and Qihai on both microcosmic and macrocosmic conditions.

For retention of Cold in the uterus, Qugu (CON 2), Qihai (CON 6), Guila (ST 29) and Mingmen (GOV 4) are employed to warm the uterus and to disperse the Cold. Qugu and

Qihai are usually more effective for microcosmic Cold, but Mingmen is better for macrocosmic Cold.

For Phlegm and Blood stagnation, point selection includes Zhongji (CON 3), Guila (ST 29) and Fenglong (ST 40). These three points can regulate the Qi circulation in the pelvic organs, clear blood stasis, and dissolve the phlegm. Zhongji and Guila have more direct effect on the microcosmic Phlegm and Blood stagnation in the pelvic area. However, Fenlong eliminates the Phlegm and stagnation through mobilizing the macrocosmic Spleen function.

The following table summarizes the acupuncture point selections for various microcosmic (mic) and macrocosmic (mac) patterns of Chinese medicine in the treatment of female infertility.

Pattern Diagnosis	Basic Points	Supplemental Points
Kidney Yang deficiency	Zigong (Extra Mer), Shanyingjiao (SP 6), Taichong (LIV 3)	Shenshu (BL 23)(mac, mic) Guanyuan (CON 4)(mic, mac)
Kidney Yin deficiency	Zigong, Shanyingjiao, Taichong	Taixi (KID 3)(mac, mic) Shenshu (BL 23)(mac, mic) Guanyuan (CON 4)(mic, mac)
Qi & Blood deficiency	Zigong, Shanyingjiao, Taichong	Guanyuan (RN 4)(mic, mac) Zusanli (ST 36)(mac) Qihai (CON 6)(mic, mac) Xuehai (SP 10)(mac)
Retention of Cold In the uterus	Zigong, Shanyingjiao, Taichong	Qugu, Qihai (CON 2, 6)(mic) Mingmen (DU 4)(mac) Guila (ST 29)(mic)
Phlegm and Blood Stagnation	Zigong, Shanyingjiao, Taichong	Zhongji (CON 3)(Mic) Guila (ST 29)(mic) Fenglong (ST 40)(mac)

Case Studies

Case1: A married Caucasian woman aged 35 had an infertile history of 6 years. The patient had seen several Western gynecologists who had given her all the available Western fertility examinations. However, all her Western examining results were within

the normal range and so were her spouse's. The Western gynecologists considered this case unexplained infertility. After she took fertility drugs without success in pregnancy, she was recommended by her gynecologists to have in-vitro fertilization. Unfortunately, she failed twice in in-vitro fertilization. Since she could no longer afford the costly in-vitro fertilization, she came to see Dr. Wang. This patient only accepted the acupuncture treatment, but did not want to take any herbal remedies. The medical history and initial acupuncture examination were nothing particular except that she had been under a lot of stress and her pulse was very wiry. Dr. Wang diagnosed Liver congestion in both microcosmic and macrocosmic views. He employed acupuncture points Zigong (Extra Mer.) and Shanyinjiao (SP 6) with moxibustion and tonifying or neutral technique, as well as Taichong (Liv 3) with sedating technique. The above treatments started on day 5 or 6 and ended on day 16 or 17 in her menstrual cycle, because her menstrual cycle was regular and between 28 and 29 days. The patient successfully conceived after receiving acupuncture treatments for two menstrual cycles, and she had a full-term healthy newborn.

The above case suggests that triple needle technique alone can effectively treat unexplained female infertility in Western medicine. When Western medicine fails to make a definite diagnosis, microcosmic method of Chinese medicine is still able to find a microcosmic or macrocosmic pattern diagnosis, which is the basis for the appropriate treatment protocol.

Case 2: A 35-year-old Caucasian female suffered from amenorrhea for ten years. She began menstruating at age 14 and had a relatively normal cycle until 25, when her menses suddenly stopped without apparent reasons. Her estradiol remained slightly below normal level for her age, but FSH (follicle stimulating hormone) was not elevated. Hormonal therapy was given to induce menses but it was not successful. She was referred to Dr. Wang for evaluation. At the initial examination, her cheeks were red, her pulse was forceful and wiry with a small Kidney pulse, and the tongue was red and not coated. She was physically active and had an athletic body. The diagnosis of microcosmic method of Chinese medicine was Kidney and Liver Yin deficiency in both microcosmic and macrocosmic views. She took Modified *Yin Essence* formula in decoction form and had weekly acupuncture treatment. Zigong (Extra Mer.), Shanyinjiao (SP6), Taixi (Kid. 3) and Taichong (Liver 3) were all needled with neutral technique bilaterally. Six months later, she began to have irregular menstrual spotting. Then, she was treated with Herbal Cyclic Therapy. Eight months after the Herbal Cyclic Therapy, the patient's menstruation was normal, with a 30-day cycle and medium flow for 3 to 4 days. Even one year after the accomplishment of the above treatment, her basal body temperature remained biphased, indicating the occurrence of ovulation. However, she had not conceived yet although her Western gynecologist found everything had been normal. At age 40, as she was hoping to become pregnant, *Zhuyuntang* was given to her between day 8 and day 17 of her menstrual cycle. Soon thereafter, she conceived and gave birth to a healthy girl.

Case 2 implicates the following treatment strategy for amenorrhea infertility: the first step is to use *Yin Essence* or *Yang Essence* formula to recover the menstrual bleeding, the second step to use herbal cyclic therapy to regulate the menstrual cycle, and the final step *Zhuyuntang* to facilitate conception.

Case 3: A married Caucasian woman experienced hot flashes, insomnia, irregular menses, low energy, thirst and frequent urination at the age of 38. Her serum FSH ranged between 45 mIU/mL and 55 mIU/mL persistently, but estradiol was not tested. Her gynecologist diagnosed premature ovarian failure. She was given 1.25mg of Premarin per day between days 1 and 25 of her cycle, as well as 5mg of Provera between days 10 and 25. The patient already had a 3-year-old daughter, but wanted to have another child. After the conventional method of treatment was unsuccessful in achieving pregnancy, she was referred to Dr. Wang in September of 1987. The initial examination revealed that her tongue looked red on the tip with a white, thin coat, while her pulse, particularly the Kidney pulse, felt weak and small. According to microcosmic method of Chinese medicine, the consideration for this case were Kidney and Liver Qi and Yin deficiency in both macrocosmic and microcosmic views. One dosage a day of modified *Liu Wei Di Huang Tang* in decoction form was regularly given. Between day 5 and 17 in her menstrual cycle, modified *Zhuyuntang* and acupuncture were added. The modified *Zhuyuntang* included Roucongrong, Yimucao, Baishao, Danggui, Xiangfu, Muxiang and Ziheche. The acupuncture points Guanyuan (neutral technique), Zhongji (neutral technique), Zigong (electro-stimulation), Taichong (electro-stimulation), Sanyinjiao (electro-stimulation) and Taixi (tonifying technique) were needed. On November 23, 1987 when her period was two days late, her serum quantitative HCG level rose to 100 IU/L, and on November 27, 1987, reached 704 IU/L. In the middle of December, she had obvious morning sickness such as nausea and gastrointestinal upset. Less than a year later, she delivered a healthy 9-pound baby boy.

The above patient is a typical case of serious premature ovarian failure because her serum FSH was very high for her age, reaching the level of 45 to 55 mIU/mL. When the serum FSH level is above 28 mIU/mL in a woman before age 45, premature ovarian failure or early menopause is positively diagnosed. The considerations of premature ovarian failure are usually associated with the Kidney Qi and Yin deficiency in both microcosmic and macrocosmic views. *Liuweidihuangtang* comprising Dihuang, Shanzuyu, Shanyao, Fuling, Jexie and Danpi, is the basic formula for this specific condition. It is important to strengthen the Qi of the Kidney and Spleen, as well as to nourishing the Kidney Yin.

Case 4: A 33-year-old married Chinese woman complained of secondary infertility. After she had her first boy 7 years earlier, she experienced multiple miscarriages at gestation of between 6 and 8 weeks. For the next four years, she was not even able to conceive. Her husband's semen analysis was excellent both in quality and quantity. Her Western gynecologist highly suspected that luteal deficiency and immuno-factors might be involved because her serum progesterone was relatively low at days 23-24 in her menstrual cycle and anti-phospholipid antibody remained positive. Because she had not responded to the conventional Western medical treatments, her Western gynecologist referred her to Dr. Wang for alternative therapy. During the initial examination, Dr. Wang found that her face looked pale, pulse felt small and tongue appeared pale with white thin coat. She had regular menstrual cycle of 28-30 days. Her menstrual flow was medium and menstrual blood was light in color. Dr. Wang diagnosed macrocosmic Qi and Blood deficiency, but microcosmic Blood stagnation and Liver congestion. Modified *Zhuyuntang* and conventional triple needle technique for female infertility were

employed from day 6 to day 17 in her menstrual cycle. This modified formula comprised Dangshen, Ziheche, Qianghuo, Danshen, Baishao, Yujin, Yimuchao, Muxiang, Xiangfu, Chaihu, Goujizi, Tusizi, Shengdi, Shoudi, Nuzhenzi and Hanliancao. In addition to the triple needle technique, Zhushanli and Qihai were added to the treatment program as well. After day 17 of her menstrual cycle, she was advised to take *Bupishen* capsules, 4 capsules each time, three times daily until the beginning of next menstrual cycle, or until the end of the first trimester if she was pregnant. The patient conceived after these treatments for two menstrual cycles. She consistently took the *Bupishen* capsules until the end of the first trimester. This pregnancy was successful in having a healthy full-term baby boy.

Case 4 demonstrates that the herbal formula *Bupishen* developed by Dr. Wang can prevent early miscarriages caused by luteal deficiency or some immuno-factors. This case also suggests that herbal formula *Zhuyuntang* plus acupuncture triple needle technique may be one of the main treatment strategies in facilitating the conception for those patients who have failed to respond to conventional Western medical treatments for female infertility.

Case 5: A 37-year-old married German woman had tried to get pregnant for over 4 years, but failed to reach her goal. Her gynecologist had given her all the fertility assessments available, and everything was perfectly normal. However, her husband's semen analysis was far below normal range: volume 2 mL, count 1.5-1.8 million/mL, motility 30-50% and morphology 50%. As the couple did not want to go through in-vitro fertilization recommended by their Western gynecologist, they came to Dr. Wang to seek alternative treatment. Examinations on the wife were nothing particular. She had a normal and regular 28-day menstrual cycle. However, examinations on her husband revealed that both testicles were markedly smaller than normal size, measured at not larger than 1cm x 1.5cm x 2 cm bilaterally, but his secondary sex characters like penile size and the masculine body appearance were normal. The husband, over 6 feet tall, had a history of mumps complicated with testitis during childhood. Obviously, the mumps caused the atrophy of both testicles and the extremely low sperm count, which were irreversible by either Western medicine or Chinese medicine. From day 6 to day 17 in her menstrual cycle, the wife was treated with herbal formula *Zhuyuntang* plus conventional triple needle technique. Surprisingly, two months after treatment, the wife was pregnant and eventually delivered a full-term healthy baby.

In fact, the above case is about male infertility, but it implicates that human fertility is the mutual consequence between male and female. When the male fertility is low, it may be compensated by the enhancement of the female fertility and vice versa.

Case 6: At the age of 35, an Asian woman went to China to see a very distinguished gynecologist of Chinese medicine for her primary infertility, because she could not get pregnant five years after she got married and had regular intercourse without contraception. The gynecologist of Chinese medicine diagnosed Liver Qi congestion and gave her *Dan Zhi Xiao Yao San* pills to soothe her Liver. However, after taking the pills for one year, she was still unable to conceive. She consulted a Western gynecologist in the United States, who found that she had hyperprolactinemia with serum prolactin at 40

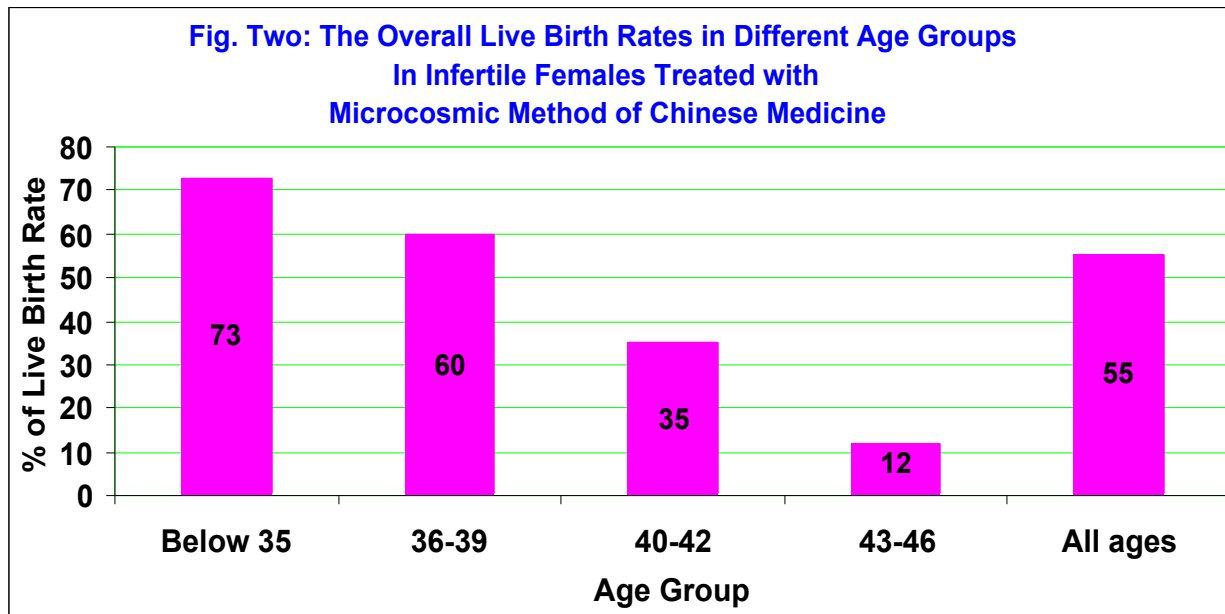
mcg/L (Normal limit is below 30 mcg/L). Meanwhile, her laparoscopy performed by this Western physician revealed stage III endometriosis, mild obstruction of the Fallopian tubes due to the severe endometriosis, and some small uterine fibroids measured at approx. 2cm x 3cm. Her endometriosis was partially cleaned up and her Fallopian tubes were completely reopened by the laparoscopy. She was given anti-hyperprolactinemic drugs and then Clomid. Her hyperprolactinemia was under control quickly, but she was still not pregnant even 7 months after the above drug therapies. At the age of late 36, she came to Dr. Wang for help. The initial examination showed nothing particular except that her face was slightly pale and her pulse somewhat bowstring. Undoubtedly, her pulse and face patterns were compatible with Liver Qi congestion in macrocosmic view, as diagnosed previously by the gynecologist of Chinese medicine in China. However, considering her Western medical data such as hyperprolactinemia, serious endometriosis, partial blockage of Fallopian tubes and small uterine fibroids, Dr. Wang diagnosed serious microcosmic Phlegm, Blood and Qi stagnation in addition to the macrocosmic Liver congestion. He first prescribed modified *Shao Fu Zu Yu Tang* decoction to clear up her microcosmic Phlegm as well as microcosmic Blood and Qi stagnation. Later he used modified *Zhuyuntang* and triple needle technique plus the supplemental points to treat both of her microcosmic and macrocosmic conditions. Four months after the above treatment, she conceived and gave birth to a full-term healthy newborn weighing over 7 pounds.

Case 6 demonstrates that for female infertility, both microcosmic and macrocosmic aspects of Chinese medicine have to be taken into consideration. Any bias towards only one aspect does not always work, especially when the microcosmic patterns of Chinese medicine differ from the macrocosmic ones. The very famous gynecologist of Chinese medicine in China was correct; however, in one side — the macrocosmic aspect. He neglected the microcosmic conditions, because he merely followed the disciplines of classical Chinese medicine. The Western gynecologist was correct also, but he ignored the macrocosmic conditions. Endometriosis usually has very high recurrence soon after the surgery. Only when *both* microcosmic and macrocosmic conditions are treated and Chinese and Western medical treatments are integrated, chances of success in difficult cases will be significantly increased.

Treatment Results from the New Approach

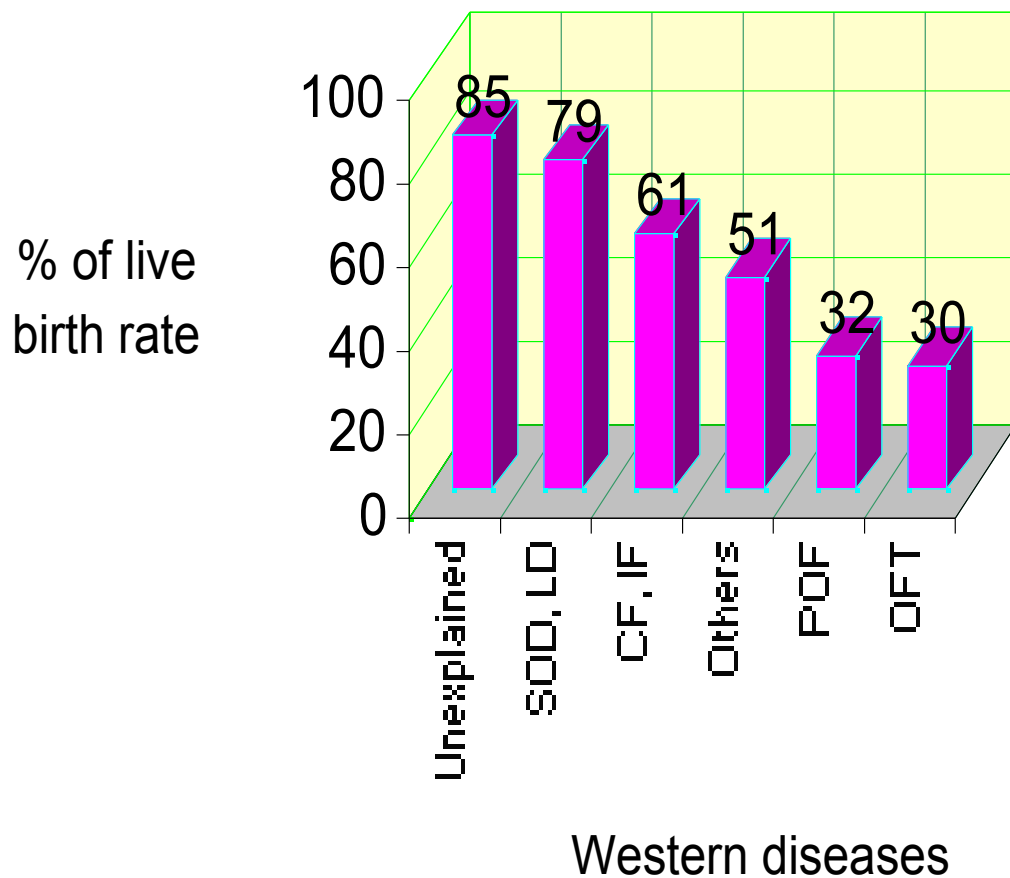
Using the microcosmic method of Chinese medicine as a new approach, Dr. Wang has treated over five hundred infertile women. Prior to the treatment, all the patients had an infertile history from one to ten years. 72 percent of these patients had primary infertility and 28 percent secondary infertility. Their ages ranged between 28 and 46, averaging 37.3. Infertile women here were substantially older than those reported in Chinese medical literature, since the average age of infertile females treated by Chinese medicine in China was between 25 and 33. The duration of treatment was 2 to 6 months on the average, ranging from less than one week to over two years.

The overall pregnancy rate was 65 percent and live birth rate 55 percent. The 10 percent discrepancy between pregnancy rate and live birth rate was due to spontaneous miscarriages, mostly in women aged over 40 and usually occurring before the first trimester. All the newborns conceived with this new approach were generally healthy, free from any major congenital malformations. Obviously, age was an important factor influencing the success rate. In the age group younger than 35, the overall live birth rate accounted for 73 percent; in the age group between 35 and 39, 60 percent; between 40 and 42, markedly dropped to 35 percent; between 43 and 46, only 12 percent (Fig. 2).



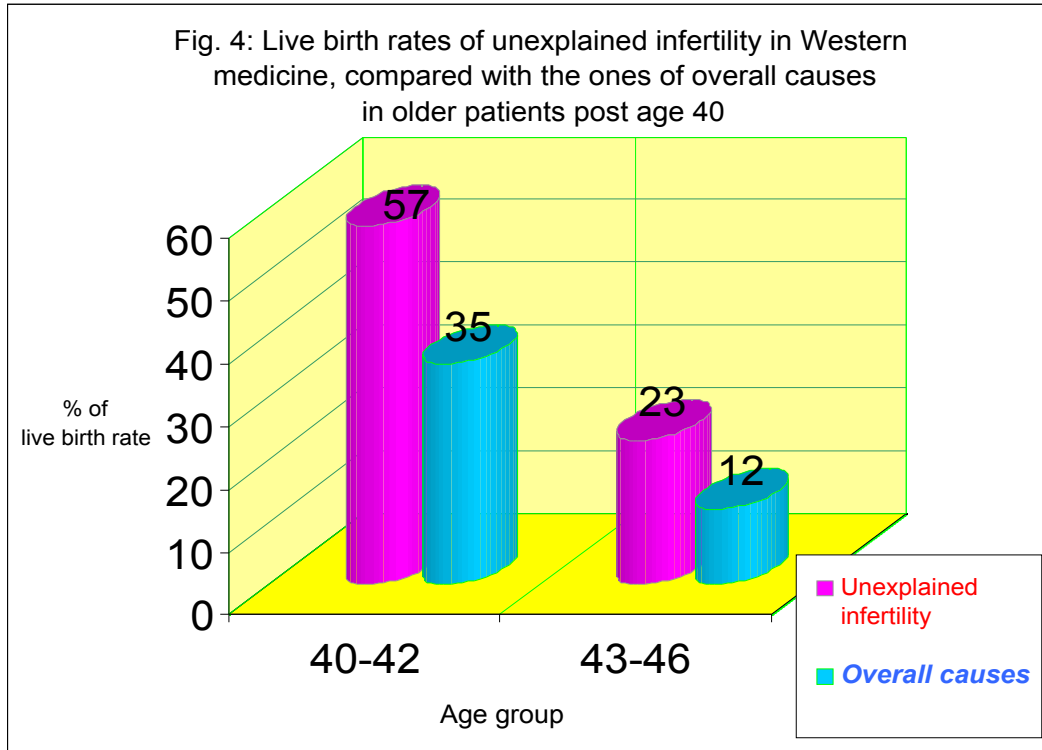
According to Western etiology, in patients below age 40, the live birth rate was 85 percent for unexplained infertility; 79 percent for simple ovulatory dysfunction and luteal deficiency; 61 percent for cervical factors and immuno factors; 51 percent for endometriosis, polycystic ovaries, uterine fibroids and other intrauterine factors; 32 percent for premature ovarian failure; and 30 percent for obstruction of the Fallopian tube (Fig. 3). Evidently, this new approach achieved the highest success rate in unexplained infertility in Western medicine; the second highest success rate in simple ovulatory dysfunction and luteal deficiency; and considerably high success rates in cervical factors, immuno factors, endometriosis, polycystic ovaries, intrauterine factors and premature ovarian failure. (Fig. 3).

Fig. 3: Live birth rates in different western etiologies in patients below age 40



(In Fig. 3, Unexplained = unexplained infertility in Western medicine; SOD, LD = simple ovulatory dysfunction & luteal deficiency; CF, IF = cervical factors and immuno factors; Others = endometriosis, polycystic ovaries and intrauterine factors; POF = premature ovarian failure; OFT = obstruction of Fallopian tubes.)

For patients with unexplained infertility in Western medicine, the live birth rate was 57 percent in the age group between 40 and 42, and 23 percent in the age group between 43 and 46 (Fig. 4). Therefore, even in older patients after age 40, the success rates for unexplained infertility in Western medicine were still relatively high, compared with the ones of overall causes.



In summary, microcosmic method of Chinese medicine has significantly increased the pregnancy rate and live birth rate in infertile women. This new approach has succeeded in many difficult cases that had previously failed to respond to either conventional Western medicine or classical Chinese medicine, because it takes both microcosmic and macrocosmic conditions into consideration and naturally integrates both Chinese and Western medical systems.

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