CASE STUDY

DELIVERY OF A FULL-TERM PREGNANCY AFTER TCM TREATMENT IN A PREVIOUSLY INFERTILE PATIENT DIAGNOSED WITH POLYCYSTIC OVARY SYNDROME

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There is a growing body of literature supporting the use of traditional Chinese medicine (TCM) for increasing the likelihood of conception and carrying a pregnancy to term. The use of TCM in fertility treatment is becoming more widely recognized, and several clinical trials are being supported by the National Center for Complementary and Alternative Medicine to assess the efficacy of such treatments, as evidenced by the listings in the National Institutes of Health's Computer Retrieval of Information on Scientific Projects (CRISP) database. It is important that TCM practitioners share their expertise and practical experiences through case reports in the same spirit that their Western medical counterparts do. This dissemination of knowledge is critical in increasing awareness about TCM within the broader scientific community. The clinical case report presented here describes the course of TCM treatment that resulted in a successful pregnancy in a previously infertile woman who had been diagnosed with polycystic ovary syndrome (PCOS). It also illustrates the importance of the need for collaborative efforts between TCM and Western medical practitioners. (Altern Ther Health Med. 2009;15(1):50-52.)

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Polycystic ovary syndrome (PCOS) affects 7% to 10% of premenopausal women. Research has shown that women with PCOS develop many small cysts on the periphery of their ovaries. Several of the symptoms develop as a result of hormonal imbalance. PCOS is characterized as hyperandrogenism (high levels of male hormones) and chronic anovulation. Symptoms may include hirsutism (excess hair growth), obesity, hypertension, dislipidemia, type 2 diabetes, and coronary artery disease. Women with PCOS have profound insulin resistance as well as pancreatic β-cell dysfunction.

Recurrent miscarriage is defined as 3 consecutive miscarriages of pregnancies conceived with the same partner. The most common cause of recurrent miscarriage is PCOS. Other causes include parental chromosomal abnormality, antiphospholipid antibody syndrome, structural abnormalities, bacterial vaginosis, and cervical incompetence.

PCOS and recurrent miscarriage from a traditional Chinese medicine perspective

Chinese medicine is an ancient whole-medicine system independent of Western theory that heals by improving homeostasis in the body. The term TCM refers to the ancient medical practice that survives today and is systematically taught in modern colleges and universities. TCM theory states that qi (vital energy, life force, inner fire) courses through meridians (pathways) that are associated with organs and systems and can be manipulated to encourage homeostasis within the body. TCM theory attributes fertility to the functions of kidney and spleen qi.

Ancient texts teach that the jing (seed of life, life essence) that is stored in the kidney is responsible for fertility. Jing is said to be the substance most closely associated with life itself as the source of life and individual development. The entire body and all the organs need jing to survive. The kidneys, because they store jing, contain potential for life activity, and all of the organs and systems are dependent on the kidney to survive. The kidneys are often called the "root of life." The kidneys rule the ovaries. PCOS, a disruption of the ovaries, is a result of kidney disharmony.

In TCM pathology, the spleen is the primary organ of digestion. The spleen is the organ responsible for absorption of nutrients from food and assimilation of nutrients to blood and muscles. The spleen nourishes and governs the blood. The qi that the spleen produces holds the blood within the body. Weak spleen qi causes uterine bleeding and organ prolapse. Miscarriage is a result of spleen qi vacuity/deficiency.
Clinical Observation

S was a 32-year-old, 142-lb white female who presented to the TCM clinic seeking treatment for infertility. S reported amenorrhea and a previous diagnosis of PCOS. Medical history was significant for a blood clot at age 21 (attributed to birth control pills prescribed for menstrual cycle regulation) and 3 miscarriages (2 during the first trimester; 1 second-trimester loss from prematurely ruptured membranes). At the time of presentation, she was under the care of a reproductive endocrinologist. The prior history of blood clot necessitated heparin treatment during hormonal treatment and/or pregnancy.

Physical examination revealed pale and lusterless skin, deep and weak pulse, enlarged tongue with a slippery coating, and tight and swollen abdomen. TCM diagnosis was spleen qi, kidney qi, and lung qi deficiencies with liver qi stagnation. Kidney qi deficiency causes poor fertility and poor embryo viability. Spleen qi deficiency causes weakness of the muscles and membranes that hold the placenta and embryo in the body. Lung qi deficiency causes weak qi and poor circulation. Liver qi stagnation prevents smooth coursing of qi and blood. In TCM theory, the lungs breathe qi in from the air, and the kidneys "grasp the qi" from the lung and "root the qi in the body." Fertility is dependent on both kidney and lung qi, and maintaining the pregnancy is dependent on spleen qi.

Treatment Strategy

The treatment strategy was 3-fold: (1) acupuncture and Chinese herbal preparations would be used to restore the menstrual cycle, (2) acupuncture would be used immediately prior to ovulation and menstruation to increase the probability of conception, and (3) moxibustion treatments (stimulation of acupuncture points by burning of dried moxa, Artemisia vulgaris, on or near the desired point) to prevent miscarriage.

The safety of the patient is always paramount. To protect S from interactions of TCM and Western medical treatments, the TCM treatments were adjusted in conjunction with any treatments prescribed by the reproductive endocrinologist.

Herbal treatments were discontinued during any hormone treatments given in preparation for intrauterine insemination (IUI), and herbs were not used during postovulation if there was the possibility of pregnancy. Acupuncture was used only when there was no chance of pregnancy, as several acupuncture points cause uterine contractions when needled. Instead, indirect moxibustion (moxa near the actual point) was used to achieve the desired effects of each acupuncture point (with the exception of the Bai Hui point). In TCM theory, chronic miscarriage is the result of weak spleen qi that causes weakening of the blood, vessels, and uterine tissues that support and nurture the fetus. In TCM, anticoagulants such as heparin are thought to exacerbate these weaknesses and promote miscarriage. In this case, however, continuation of heparin treatments was necessary because of the patient history of hormonally induced blood clots. To counteract the negative effects of heparin, indirect moxibustion was used to strengthen the uterine tissues and placenta.

Herbal Treatment

Gu Zhi Tang (Cinnamon Twig Decoction tea pills), a Plum Flower Classic Formula (Mayway Corp, Oakland, California), 8 pills, 3 times daily for 21 days, was used to warm the interior qi and allow it to flow to the surface. Ba Zhen Wan (Eight Treasure Decoction tea pill, also called Women’s Precious Pill), Plum Flower Classic Formula, 5 pills 3 times daily throughout the course of therapy, was used to strengthen the spleen qi (to increase tissue nourishment), the lung qi (to improve circulation), and the blood (to improve the health of erythrocytes, leucocytes, platelets, and balance the overall blood composition) and to smooth liver qi that keeps the blood flowing in all directions, improving the blood supply to the organs. An in-house preparation of Chinese dong quai, Dansui (Radix angelica sinensis), was used to facilitate movement of blood and to strengthen the uterus.

Acupuncture

During the initial 12-month period of TCM treatment, a total of 27 acupuncture treatments were given immediately before ovulation and immediately before onset of menses. As stated earlier, acupuncture was used only if there was no chance that the patient was pregnant. Disposable acupuncture needles (Seirin No.3 [0.25x30mm; Seirin Corporation, Shizuoka, Japan]) were inserted approximately 1 cm into the skin and gently twisted for 1 to 3 seconds, until a light resistance against the needle was perceived. Needles remained in place for 25 minutes. Different acupuncture points along spleen (Sp) meridian (Leg Tai Yin) were selected for acupuncture based on the physical condition of S at the beginning of each visit. Tai Bai (Sp3) was used for extreme nutritive qi vacuums, Xue Hai (Sp10) was used to help clean and detoxify the blood, Yin Ling Quan (Sp9), San Yin Jiao (Sp6), and Zu San Li (Stomach [St] 36) were used to aid in digestion, assimilation of nutrients, and proper management of fluids. Tai Chong (Liver [Lr] 3) was used in accordance with TCM theory to ensure smooth circulation of qi and blood. Fu Liu (Kidney [K] 7) and Guan Yuan (Conception Vessel [CV] 4) were used to strengthen kidney qi and invigorate the yang qi (fierce, fiery qi), which together aid in fertility. Zhong Fu (Lung [Lu] 1), Lie Que (Lu7), Shuigong (K25), and Dan Zhong (CV17) were used to strengthen lung qi so the kidneys can grasp the qi and pull it deep into the body. Indirect moxibustion was used on Guan Yuan (CV4) to strengthen and warm the kidney and the jing and to drive qi into the body.

Moxibustion

During times of pregnancy and possible pregnancy, weekly moxa treatments were used instead of acupuncture. The purpose of the moxibustion was to help drive qi into the body to assist in sustaining the pregnancy. Indirect moxibustion was used on Tai Bai (Sp3), San Yin Jiao (Sp6), Zu San Li (St36), Gongsun (Sp4), Nie Guan (Pericardium [P] 6) and Guan Yuan (CV4). In particular, Guan Yuan (CV4) was heated until a pink circle approximately 4 cm in diameter was noted. A single needle in Baihui was inserted during moxa treatments to raise qi within the body and
to tighten the perineum (direct needling in this point presented no danger to the fetus). The timing and frequency of moxa treatments is described below.

Clinical Course and Outcome

One week after the onset of TCM treatment, menses resumed and were maintained on a 28-day to 32-day cycle. Natural pregnancy occurred after 2 months of treatment; at this time, medical treatment with progesterone, human chorionic gonadotropin, and heparin was initiated. TCM herbs and acupuncture were discontinued, and moxibustion treatments were started. Natural miscarriage occurred during the third month of TCM treatment. IUI was attempted during the ninth and eleventh months of TCM treatment without success. Twelve months after initiation of TCM treatment, S conceived naturally. Heparin treatment was started, and weekly moxibustion treatments were resumed. Recommendations to avoid standing and excessive movement were followed. Occasional spotting was noted starting in gestational week 3 and continued until the end of the first trimester. Moxa treatments were continued during this time. Nausea and fatigue (symptoms typically associated with pregnancy) began in gestational week 8 and continued to worsen throughout the first trimester. A cervical cerclage was performed in week 9 to help prevent miscarriage. S was gradually weaned off moxa treatments, receiving 2 treatments in month 4 and 1 treatment in months 3 and 6. TCM treatments were then discontinued. The second and third trimesters were uneventful and ended with successful delivery of a full-term baby.

CONCLUSION

TCM involves the complex use of many therapeutic modalities to achieve and maintain health. This case report documents how the synergy of 3 TCM modalities likely facilitated a successful pregnancy in a previously infertile woman; the TCM strategy was also carefully integrated with conventional Western treatments to maximize patient safety. This latter point is extremely important, as it emphasizes the need for CAM and Western medicine practitioners to be aware of and have a healthy respect for the potentially dangerous consequences of treatment interactions. Although this report demonstrates how acupuncture, herbal preparations, and moxibustion together contributed to a successful outcome, it is impossible to parse the individual contributions of each therapy. The complex nature of TCM creates difficulties in the design of clinical efficacy studies; however, the complementary and alternative medicine community needs to continue pursuing well-designed clinical trials to document the efficacy of TCM and other CAM treatments.

REFERENCES
