

The Treatment of Recurrent Spontaneous Miscarriage

Abstract

Recurrent spontaneous miscarriage (RSM) is one of the most common and complicated medical conditions amongst pregnant women. In recent years miscarriage rates have been progressively increasing, due to women trying to conceive later in life and the higher risk of pregnancy loss from in vitro fertilisation (IVF) and intra-uterine insemination (IUI). Traditional Chinese medicine (TCM) is often able to treat and prevent RSM. In this article the aetiology and pathology of RSM are analysed from an integrated perspective of TCM and modern biomedicine, and a TCM treatment programme using acupuncture and Chinese herbal medicine is presented.

Introduction

Recurrent spontaneous miscarriage (RSM) is a diagnostic label used when three or more consecutive miscarriages have occurred.¹ It is also known as habitual abortion, and can be emotionally devastating for the women and couples affected. In the UK, women who miscarry are not usually investigated until they have miscarried at least three times.¹

Miscarriage is common, and affects around 25 per cent of all pregnancies,¹ including at least 15 per cent of confirmed pregnancies during the first trimester (12 weeks).² Approximately 21 per cent of IVF pregnancies miscarry spontaneously,¹ and women aged 40 or over lose nearly 50 per cent of pregnancies resulting from IVF treatment.³ RSM occurs in approximately one per cent of women, and in about half of these cases a cause can be identified.⁴ Recent research has begun to identify some of the causes of RSM and explore various possible treatments. TCM treatment can not only help prevent miscarriage, but also help maintain a healthy pregnancy to give a baby the best possible start of life.^{1,3,5}

Modern biomedicine

In modern biomedical terms the causes of RSM are currently understood as follows:

1. **Immunological reactions:** Research suggests that approximately 80 per cent of instances of RSM are caused by immunologic factors,^{5,6} which can be divided into five categories:
 - 1.1 **Autoimmune disorders:** In couples whose genetic match is too close, the mother's body is unable to recognise the embryo as a baby, and fails to produce the necessary blocking antibodies, causing the embryo or foetus to be rejected. The treatment for this is lymphocyte immune therapy (LIT), a procedure in which white blood cells from the prospective father are injected into the skin of the prospective mother.

- 1.2 **Blood-clotting disorders:** These include anti-phospholipid syndrome (APS), lupus anti-coagulant syndrome, anti-thrombin III deficiency and protein C or S resistance. Women with clotting disorders can develop placental thrombosis, which starves the embryo or foetus of blood and results in miscarriage. In such cases the use of low-dose aspirin and heparin have been shown to improve pregnancy outcomes.⁷

- 1.3 **Anti-sperm antibodies and anti-nuclear antibodies:** Women can develop anti-sperm antibodies, which kill the sperm or developing embryo, or anti-nuclear antibodies, which directly attack the embryo or foetus; both cause spontaneous abortion. The typical treatment involves suppressing the immune system with steroids such as prednisolone or dexamethasone, beginning on day six of the women's menstrual cycle until at least 13 weeks of pregnancy.

- 1.4 **Elevated natural killer (NK) cells, elevated cell designation (CD) cells and altered Th (T-helper) 1/Th2 ratios:** High levels of uterine NK cells and other CD cells are associated with RSM. T-helper cells are lymphocytes, the primary cells of the immune system. Altered Th1/Th2 ratios, with the associated changes in cytokine secretions, have been found to indicate dysregulation of the immune system. Treatments for these factors include LIT, intravenous Immunoglobulin G (IVIg), intralipids, Humira, low dose aspirin or Prozac. A recently reported method to lower the number of NK cells is a technique known as the 'endometrial scratch', which involves making a number of small scratches on the lining of the womb via the cervix.⁸

- 1.5 **Thyroid disorders:** Approximately 23 to 35 per cent of women who experience RSM have anti-thyroid antibodies,⁹ which may

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indicate a thyroid disorder as well as abnormal T-cell function and thus be responsible for implantation failure. The medication for this is synthetic thyroxine.

Research for these treatments is still in the experimental stages, and their therapeutic effects have yet to be clearly established. The drugs can be very expensive, and can cause potentially serious adverse reactions.⁶

2. Other possible causes of miscarriage

2.1 Maldevelopment of the foetus: 70 per cent of defective conceptions are caused by chromosomal abnormalities in the foetus.²

2.2 Endocrine disorders

- Premature ovarian failure (POF): Women with POF find it difficult to conceive, and often miscarry early in pregnancy. Modern biomedicine can do very little to treat POF.
- Luteal phase defect (LPD): LPD involves insufficient progesterone production. Studies have demonstrated that this causes impaired follicular and endometrial development.⁹ Clomiphene, synthetic progesterone and/or human chorionic gonadotropin (HCG) are often used to treat LPD-related RSM.
- Polycystic ovarian syndrome (PCOS): PCOS is a factor in about 10 per cent of women with RSM.¹⁰

2.3 Uterine problems: These occur in 15 per cent of women with a history of RSM,⁴ and include:

- Uterine abnormalities, such as abnormal shape or size.
- Uterine adhesions or cervical lesions.
- Endometriosis or fibroids.
- Incompetent cervix: This is commonly associated with pregnancy loss in the second trimester (14 to 28 weeks) of pregnancy. It typically occurs as a sudden leakage of fluid followed by miscarriage.

2.4 Maternal disease: This includes women suffering from acute illnesses such as rubella, toxoplasmosis, appendicitis, pneumonia or urinary tract infections (UTIs) during pregnancy. Other medical conditions such as diabetes are also associated with a high risk of RSM.

2.5 Stress and anxiety: Severe and enduring emotional upset and worry can lead to RSM.¹

2.6 IVF/IUI treatment: About 21 per cent of IVF pregnancies miscarry spontaneously.¹

2.7 Smoking, alcohol and caffeine: Smoking and drinking alcohol and caffeine increase the risks of miscarriage. There is evidence to suggest that reducing caffeine intake to one or two cups per day is prudent.¹

In approximately 50 per cent of women experiencing RSM no cause can be found despite thorough investigations. In such cases treatment with 'endometrial scratch' (see above)

has been shown to be effective in increasing the success of a subsequent pregnancy, and may be discussed as a possible treatment option.⁸

TCM aetiology and pathology

TCM focuses on determining the underlying causes of RSM. According to TCM literature and the author's clinical experience, there are six primary causes of RSM:

1. Deficiency of the Kidney and Spleen, and disharmony of the Chong (Penetrating) and Ren (Conception) vessels

The Kidney is considered to be the origin of congenital constitution. It stores essence and dominates growth, development and reproduction. The Spleen provides the basis of the acquired constitution. It transforms and transports food into usable nutrients and energy and is thus considered the source of qi and blood. The Chong vessel is the 'Sea of Blood', and permeates the whole body as a reservoir for the circulation of qi and blood. It regulates the qi and blood of the twelve regular channels, and is closely related to menstruation. The Ren vessel is the 'Sea of Yin', originates in the uterus and is closely related to conception. Both vessels are responsible for blood supply to the uterus during pregnancy. Deficiency of the Kidney and Spleen may lead to inadequate essence and blood, causing sinking of qi and disharmony of Chong and Ren vessels. As a consequence, any foetus in the uterus will not be properly nourished and miscarriage will occur.

2. Kidney qi deficiency with blood stagnation in the uterus

This pattern tends to affect various women, including those born with a constitutional Kidney qi deficiency, those who have taken the oral contraceptive pill long-term, those who have previously miscarried more than once, those who have gone through several IVF/IUI attempts, and those who have experienced pelvic surgery or abortion. All of these factors impair the Kidney qi, deplete the essence and cause blood stagnation in the uterus. Because of this, the foetus becomes starved of blood and will eventually stop growing and developing.

3. Kidney yin deficiency with Liver qi stagnation and blood heat

This pattern is often seen in women born with constitutional yin deficiency, or those who endure stressful emotions such as fear, anger or grief that cause Liver qi stagnation and subsequently Liver fire and blood heat. The heat invades the uterus, disturbs the Sea of Blood and attacks the foetus, causing miscarriage.

4. Spleen qi and blood deficiency

This pattern affects women with a poor diet, particularly those who consume excessive amounts of cold food and dairy products, as well as those who experience long-

term illness, extreme worry and anxiety, and those who work excessively long hours. These factors impair Spleen function, causing qi and blood deficiency. As a consequence, the body is unable to hold and nourish the foetus, and miscarriage results.

5. Damp and heat accumulated in the uterus

This pattern tends to affect women born with an excessively yang constitution, those who over-consume spicy, fatty food and dairy produce, those who endure long-term stress or fear, those invaded by a hot pathogen, those affected by severe endometriosis or fibroids involving inflammation, or those who suffer from urinary tract or other infections during pregnancy. Accumulation of damp and heat in the uterus will adversely affect the development of the foetus and eventually lead to miscarriage if left untreated.

6. External factors (trauma)

Falls, accidents, traumatic impacts and excessively heavy physical work cause disharmony of qi and blood and impair the function of the Chong and Ren vessels. This may then affect the growth and development of the foetus and cause miscarriage.

TCM differentiation and treatment

Women who experience RSM are advised to receive TCM treatment three months prior to conception and during the first trimester of pregnancy. There are traditionally four TCM patterns relating to miscarriage (deficiency of qi and blood, Kidney deficiency, blood heat and trauma).¹¹ However, the author has modified these according to experience and divides the condition into six patterns.

1. Deficiency of Kidney yang and Spleen qi with disharmony of the Chong and Ren vessels

This pattern is commonly seen in women with LPD or PCOS, both of which can initially cause infertility and subsequently miscarriage early in pregnancy once achieved.

Clinical manifestations: Lower back pain, sinking sensation in the lower abdomen, vaginal bleeding during early pregnancy, frequent urination, cold limbs, a fine and slippery pulse, and a pale or pink tongue with thin coating.

Treatment principles: Strengthen Kidney yang and Spleen qi, warm the uterus and nourish the foetus.

Acupoints: Baihui DU-20, Pishu BL-20, Shenshu BL-23, Zusanli ST-36, Fuliu KID-7, with moxa on Mingmen DU-4, Pishu BL-20, Shenshu BL-23 and Yinbai SP-1.

Herbal prescription: Tu Si Zi (*Cuscutae Semen*) 10g, Xu Duan (*Dipsaci Radix*) 10g, Sang Ji Sheng (*Taxilli Herba*) 10g, Du Zhong (*Eucommiae Cortex*) 10g, Sha Yuan Zi (*Astragalgi complanati Semen*) 8g, Shu Di Huang (*Rehmanniae Radix preparata*) 15g, Chao Bai Zhu (*Dry-fried Atractylodis macrocephalae Rhizoma*) 10g, Dang Shen (*Codonopsis Radix*) 8g, E Jiao (*Asini Corii Colla*) 9g, Ai Ye (*Artemisiae argyi Folium*) 8g and Gui Zhi (*Cinnamomi Ramulus*) 6g.

2. Kidney qi deficiency with blood stagnation

This pattern often occurs in women with autoimmune disorders or anti-phospholipid syndrome, and can cause miscarriage at any stage of the pregnancy.

Clinical manifestations: Lower back-ache, fatigue, vaginal bleeding or spotting with dark-brown blood, slow development and growth of the foetus, a pink tongue with dark purple spots, and a deep and thready pulse.

Treatment principles: Strengthen Kidney qi, invigorate blood and dispel blood stasis, and nourish the foetus.

Acupoints: Geshu BL-17, Ganshu BL-18, Shenshu BL-23, Xuehai SP-10 and Fuliu KID-7.

Herbal prescription: Ba Ji Tian (*Morindae officinalis Radix*), Du Zhong (*Eucommiae Cortex*) 10g, Tu Si Zi (*Cuscutae Semen*) 15g, Xu Duan (*Dipsaci Radix*) 12g, Ji Xue Teng (*Spatholobi Caulis*) 10g, Dan Shen (*Salviae miltiorrhizae Radix*) 8g, Chuan Xiong (*Chuanxiong Rhizoma*) 5g, Huang Qi (*Astragali Radix*) 8g, Mu Dan Pi (*Moutan Cortex*) 8g and Chi Shao (*Paeoniae Radix rubra*) 8g.

3. Kidney yin deficiency with Liver qi stagnation and blood heat

This pattern is likely to occur when the biomedical diagnosis involves anti-sperm antibodies, natural killer cells or hyperthyroidism.

Clinical manifestations: Vaginal bleeding during early pregnancy with bright red blood, restless foetus (the foetus moves around excessively), abdominal pain, constipation, irritation, anxiety, disturbed sleep, hot palms, fever, night sweats, a red tongue with yellow coating or no coating at all, and a taut, slippery and rapid pulse.

Treatment principles: Nourish Kidney yin and Liver blood, clear heat and calm the foetus.

Acupoints: Yintang (M-HN-3), Xuehai SP-10, Quchi L.I.-11, Neiguan P-6, Shenmen HE-7, Taixi KID-3, Taichong LIV-3, Geshu BL-17 and Ganshu BL-18.

Herbal prescription: Sheng Di Huang (*Rehmanniae Radix*) 15g, Huang Qin (*Scutellariae Radix*) 9g, Bai Shao (*Paeoniae Radix alba*) 10g, Han Lian Cao (*Ecliptae Herba*) 9g, Mai Men Dong (*Ophiopogonis Radix*), 10g, Shan Yao (*Dioscoreae Rhizoma*) 10g, Xu Duan (*Dipsaci Radix*) 12g, Dan Shen (*Salviae miltiorrhizae Radix*) 8g, E Jiao (*Asini Corii Colla*) 10g, Suan Zao Ren (*Ziziphi spinosae Semen*) 10g, Wu Wei Zi (*Schisandrae Fructus*) 8g and Gan Cao (*Glycyrrhizae Radix*) 6g.

4. Spleen qi and blood deficiency

This pattern is often seen in early pregnancy in women with hypothyroidism, LPD or incompetent cervix.

Clinical manifestations: Tiredness, shortness of breath, dizziness, sinking sensation in the lower abdominal area, light, pale-coloured bleeding, pale complexion, a pale tongue, and a weak and slippery pulse.

Treatment principles: Strengthen Spleen qi and tonify blood to nourish the foetus.

Acupoints: Baihui DU-20, Yintang (M-HN-3), Neiguan

P-6, Zusanli ST-36, Geshu BL-17, Pishu BL-20 and moxa on Yinbai SP-1.

Herbal prescription: Dang Shen (*Codonopsis Radix*) 10g, Chao Bai Zhu (*Dry-fried Atractylodis macrocephalae Rhizoma*) 10g, Shu Di Huang (*Rehmanniae Radix preparata*) 12g, Bai Shao (*Paeoniae Radix alba*) 9g, Huang Qi (*Astragali Radix*) 10g, Dang Gui (*Angelicae sinensis Radix*) 8g, Du Zhong (*Eucommiae Cortex*) 8g, Sheng Ma (*Cimicifugae Rhizoma*) 5g, Sha Ren (*Amomi Fructus*) 8g and Zhi Gan Cao (*Glycyrrhizae Radix preparata*) 6g.

5. Damp and heat stagnation in the uterus

This is likely to occur during the second and third trimesters if a pregnant women contracts an infection (for instance a UTI).

Clinical manifestations: Abdominal pain, bloated abdomen, fever, itchy skin, headache, restlessness, slow development of the foetus (which will eventually stop growing altogether if the condition is left untreated), a red tongue with a yellow greasy coating, and a slippery and rapid pulse.

Treatment principles: Clear heat and remove dampness, detoxify the blood to nourish the foetus and maintain the pregnancy.

Acupoints: Yintang (M-HN-3), Neiguan P-6, Quchi L.I.-11, Xuehai SP-10, Zusanli ST-36, Yinlingquan SP-9, Taichong LIV-3 and Taixi KID-3.

Herbal prescription: Huang Qin (*Scutellariae Radix*) 10g, Jin Yin Hua (*Lonicerae Flos*) 10g, Lian Qiao (*Forsythiae Fructus*) 10g, Chi Shao (*Paeoniae Radix rubra*) 10g, Sheng Di Huang (*Rehmanniae Radix*) 15g, Dan Shen (*Salviae miltiorrhizae Radix*) 9g, Mu Dan Pi (*Moutan Cortex*) 9g and Huang Bai (*Phellodendri Cortex*) 8g.

6. Traumatic injury

Clinical manifestations: Lower abdominal pain, sinking sensation, backache, restless foetus (the woman will feel that the foetus is very active with strong movements) or vaginal bleeding, pale complexion, lethargy, and a wiry and slippery pulse.

Treatment principle: Harmonise qi and blood to tranquilise the spirit and ease the mind, secure the Chong and Ren to protect the foetus.

Acupoints: Baihui DU-20, Sishencong (M-HN-1), Yintang (M-HN-3), Neiguan P-6, Zusanli ST-36 and Shenmen HE-7. **Herbal prescription:** Ren Shen (*Ginseng Radix*) 9g, Huang Qi (*Astragali Radix*) 10g, Bai Shao (*Paeoniae Radix alba*), Shu Di Huang (*Rehmanniae Radix preparata*) 15g, Tu Si Zi (*Cuscutae Semen*) 12g, Sang Ji Sheng (*Taxilli Herba*) 10g, Xu Duan (*Dipsaci Radix*) 10g, Du Zhong (*Eucommiae Cortex*) 8g, Suan Zao Ren (*Ziziphispinosae Semen*) 10g, Chao Bai Zhu (*Dry-fried Atractylodis macrocephalae Rhizoma*) 9g, Fu Shen (*Poriae Sclerotium paradidicis*) 9g, Gan Cao (*Glycyrrhizae Radix*) 6g.

General modifications

In order to treat RSM effectively it is necessary to correctly differentiate the primary TCM pattern of disharmony. However, complicated conditions involving multiple patterns are commonly seen in clinical practice. Therefore, modifications are necessary and can make a significant impact on the outcome of treatment. Here are the general modifications according to the author's clinical experience:

1. For blood deficiency, add Gou Qi Zi (*Lycii Fructus*), He Shou Wu (*Polygoni multiflori Radix*) and Ji Xue Teng (*Spatholobi Caulis*), and/or acupoints Geshu BL-17 and Ganshu BL-18.
2. For qi deficiency with a sensation of sinking in the lower abdomen, add Huang Qi (*Astragali Radix*), Dang Shen (*Codonopsis Radix*) and Sheng Ma (*Cimicifugae Rhizoma*), and/or acupoints Zusanli ST-36, Baihui DU-20, and apply moxa on Qihai REN-6 and Guanyuan REN-4.
3. For Spleen deficiency add Fu Ling (*Poria*), Shan Yao (*Dioscoreae Rhizoma*) and Bai Zhu (*Atractylodis macrocephalae Rhizoma*), and/or acupoints Zusanli ST-36, Yinlingquan SP-9 and use moxa on Pishu BL-20 and Weishu BL-21.
4. For Kidney yang deficiency, add Du Zhong (*Eucommiae Cortex*), Xu Duan (*Dipsaci Radix*), Tu Si Zi (*Cuscutae Semen*) and Gui Zhi (*Cinnamomi Ramulus*), and apply moxa at acupoints Shenshu BL-23 and Mingmen DU-4.
5. For Kidney yin deficiency, add herbs Shu Di Huang (*Rehmanniae Radix preparata*), Han Lian Cao (*Ecliptae Herba*), Shan Zhu Yu (*Corni Fructus*), Sang Shen Zi (*Fructus Mori Albae*), Huang Jing (*Polygonati Rhizoma*) and Mai Men Dong (*Ophiopogonis Radix*), and/or acupoints Taixi KID-3, Shenmen HE-7 and Neiguan P-6.
6. For abdominal pain, add Bai Shao (*Paeoniae Radix alba*) and Gan Cao (*Glycyrrhizae Radix*), and/or acupoints Pishu BL-20 and Ganshu BL-18.
7. For bleeding due to heat, add Han Lian Cao (*Ecliptae Herba*), Huang Qin (*Scutellariae Radix*), and/or acupoints Xuehai SP-10, Dadun LIV-1 and Quchi L.I.-11. For bleeding due to cold add Ai Ye (*Artemisiae argyi Folium*), E Jiao (*Asini Corii Colla*) and Jing Jie Sui (*Schizonepetae Spica*), and/or apply moxa on acupoints Baihui DU-20 and Yinbai SP-1.
8. For nausea and poor appetite add Sha Ren (*Amomi Fructus*), Chen Pi (*Citri reticulatae Pericarpium*), Bai Zhu (*Atractylodis macrocephalae Rhizoma*) and Sheng Jiang (*Zingiberis Rhizoma recens*), and/or acupoints Neiguan P-6, Zusanli ST-36 and Zhongwan REN-12.
9. For stress, anxiety and insomnia add herbs Chai Hu (*Bupleuri Radix*), Bai Shao (*Paeoniae Radix alba*), Suan Zao Ren (*Ziziphi spinosae Semen*), Wu Wei Zi (*Schisandrae Fructus*), Fu Shen (*Poriae Sclerotium paradidicis*), Long Yan Rou (*Longan Arillus*) and Bai Zi Ren (*Platycladi Semen*), and/or acupoints Baihui

DU-20, Sishencong (M-HN-1), Yintang (M-HN-3), Neiguan P-6 and Shenmen HE-7.

Discussion

1. In cases of RSM there is always some degree of Kidney and blood deficiency, and therefore strengthening Kidney qi and nourishing blood are always crucial prior to pregnancy and during the treatment of RSM in order to encourage the woman's body to be more conceptive and able to maintain a pregnancy to full term. However, women with RSM experience such emotional stress and anxiety - which further increases the risk of miscarriage - that soothing Liver qi and nourishing Heart yin must also be considered at all times during treatment.
2. When pregnant women experience lower abdominal pain or vaginal bleeding during early pregnancy they should be referred for ultrasound scan to rule out an ectopic pregnancy.
3. It is important to remember when treating RSM not to move qi or quicken the blood too forcefully. Any Chinese herbs or acupuncture points with these functions should be used cautiously, or else avoided.
4. For those women who have had previous miscarriages, receiving TCM treatment to prepare the body before conception is just as important as treatment during pregnancy itself, ideally starting three months prior to conception.
5. It is sometimes necessary to combine TCM with modern biomedical treatment to achieve the best possible result. However, when treating women who are undergoing IVF, ICSI or IUI, exercise caution with the use of Chinese herbs, unless it is known exactly how they will interact with the prescribed drugs.

Case study 1: Deficiency of Kidney yang and Spleen qi with traumatic injury

Lindsay, a 31-year-old solicitor, had achieved five pregnancies, the first of which had resulted in a live birth but the subsequent four had miscarried, including one at 12 weeks and the other three at five to six weeks. Blood tests did not reveal any blood clotting disorder or chromosomal defects. She conceived again five months after her last miscarriage in August 2006, and went to see a consultant at the hospital Early Pregnancy Assessment Unit. She was told that they were unable to perform any investigations or offer any preventative treatment during pregnancy. Instead, she was referred for TCM treatment. When she presented in clinic she was five weeks pregnant, felt tired and cold, had a pale complexion, was extremely anxious, and was experiencing lower abdominal pain, backache and frequent urination. She had a pink 'geographic' tongue and a deep, thin pulse.

Treatment

Acupoints

Baihui DU-20, Yintang (M-HN-3), Neiguan P-6, Shenmen HE-7, Zusanli ST-36, moxa on Guanyuan REN-4, Qihai REN-6, Shenshu BL-23 and Mingmen DU-4, all needled with reinforcing technique. Treatment was once weekly until 14 weeks pregnant, and then once monthly until 29 weeks pregnant.

Herbal prescription

Huang Qi (Astragali Radix) 10g, Dang Shen (Codonopsis Radix) 10g, Chao Bai Zhu (dry-fried *Atractylodis macrocephalae* Rhizoma) 10g, Dang Gui (Angelicae sinensis Radix) 8g, Bai Shao (Paeoniae Radix alba) 8g, Sang Ji Sheng (Taxilli Herba) 10g, Xu Duan (Dipsaci Radix) 10g, Du Zhong (Eucommiae Cortex) 10g, Tu Si Zi (Cuscutae Semen) 10g, Shu Di Huang (Rehmanniae Radix preparata) 12g, Ai Ye (Artemisiae argyi Folium) 8g, E Jiao (Asini Corii Colla) 10g, Sha Ren (Amomi Fructus) 6g and Zhi Gan Cao (Glycyrrhizae Radix preparata) 6g. Six bags a week until eight weeks pregnant, then four bags a week until 12 weeks pregnant.

The patient was advised to work part-time only, as her job as a solicitor was stressful. After the first two weeks of treatment all of her symptoms disappeared, apart from feeling a bit tired and experiencing nausea. For the purposes of research at the hospital she received blood tests and ultrasound scans from seven weeks every two to three weeks until she was 17 weeks pregnant, which confirmed that the foetus was developing well. Unfortunately at 29 weeks gestation she was involved in a car accident and was left with severe pain in her neck, back, shoulders and chest, as well as headache, stomach cramps, anxiety and difficulty sleeping. Thankfully however, an ultrasound scan showed that the baby was fine. I modified the acupoint prescription as follows in order to tonify qi, nourish the Heart and calm the shen, strengthen the Kidney and calm the foetus, and relax the muscles to relieve pain: Baihui DU-20, Sishencong (M-HN-1), Yintang (M-HN-3), Neiguan P-6, Shenmen HE-7, Zusanli ST-36, Shanzhong REN-17, Taichong LIV-3, Jingbailao M-HN-15, Jianzhongshu SI-15, Tianzong SI-11 and appropriate ashi points.

The herbal prescription was modified as follows: Dang Shen (Codonopsis Radix) 10g, Huang Qi (Astragali Radix) 10g, Bai Shao (Paeoniae Radix alba) 10g, Gan Cao (Glycyrrhizae Radix) 6g, Suan Zao Ren (*Ziziphi spinosae* Semen) 10g, Shu Di Huang (Rehmanniae Radix preparata) 15g, Tu Si Zi (Cuscutae Semen) 10g, Xu Duan (Dipsaci Radix) 10g, Sang Ji Sheng (Taxilli Herba) 10g and Du Zhong (Eucommiae Cortex) 8g. One bag a day for 10 days. After this treatment the patient felt completely well, and subsequently gave birth naturally to a healthy baby boy at full term.

Case study 2: Yin deficiency with blood heat.

Emily, a 33-year-old company manager, had been trying to have a baby for four years. She had achieved five pregnancies, including one natural pregnancy and four from IUI treatment. Unfortunately she miscarried the first at nine weeks and the other four at five weeks gestation. She had blood tests for immunological reactions and chromosomal defects, the results of which were normal. She was referred for TCM treatment when she was undergoing IVF treatment. The patient had always experienced painful and clotted periods for which she had to take painkillers for pain relief. She had also taken the contraceptive pill for five years before trying for a family. She was stressed and busy with managing her business, worked long hours and travelled a lot. She also went to the gym three to four times a week, where she sweated profusely. Her tongue was red with a thin coating, and her pulse was thready, slippery and rapid.

Treatment

- From seven weeks prior to egg collection weekly she received acupuncture treatment that focused on nourishing Kidney yin, increasing blood flow to the uterus and ovaries, improving egg quality and preparing for conception. The points selected were: Yintang (M-HN-3), Neiguan P-6, Hegu L.I.-4, Tianshu ST-25, Guanyuan REN-4, Zigong (M-CA-18), Xuehai SP-10, Sanyinjiao SP-6, Taixi KID-3, Taichong LIV-3, Shenshu BL-23 and Geshu BL-17, all needled with reinforcing or even needle technique. The patient was also advised to stop drinking tea and coffee, to exercise in moderation and to work fewer hours.
- After the embryos been transferred acupuncture treatment changed to support implantation, using the following points: Baihui DU-20, Neiguan P-6, Shenmen HE-7, Zusanli ST-36, Taixi KID-3, and auricular points Naodian (Brain) and Neifenmi (Endocrine), all needled with reinforcing technique. She was also prescribed Clexane injections and progesterone pessaries from the hospital. In addition I advised her to stop exercise completely for 12 weeks and take it easy.

During pregnancy the patient had a small amount of brown spotting at six weeks for one day, but no abdominal pain or backache. She had a scan on the following day and the foetus' heartbeat was clearly visible. She was then fine until 17 weeks when she experienced light bleeding, which was found to be caused by a polyp in her uterus. A scan showed the polyp had stopped growing and there was no further bleeding. The patient gave birth to a healthy baby girl at full term.

Li Qin Zhao graduated in 1985, after five years study at TCM University, and is qualified in both TCM and conventional Western medicine. She has 28 years clinical and research experience, specialising in gynaecological and reproductive medicine. She practised acupuncture and Chinese medicine in the state hospital in China for 10 years, and then established her practice in the UK since 1995, has developed a unique TCM programme for women with infertility and RSM. She has been working in collaboration with CARE Fertility Centre and other gynaecological and reproductive consultants in the hospitals. For further information, please contact: fertilitycare@zhongjinguk.com

References

- 1 West, Z. (2001). *Acupuncture in Pregnancy and Childbirth*. London: Churchill Livingstone
- 2 Lewis, T. & Chamberlain, G.V.P (1990). *Obstetrics by 10 Teachers*. London: Hodder & Stoughton
- 3 Liang, L. (2003). *Acupuncture & IVF*. Boulder: Blue Poppy Press
- 4 Coughlan, C., Ledger, W. & Li, T.C. (in press). "Factors Affecting the Outcome of Endometrial Scratch in Women with Recurrent Implantation Failure". *Journal of Reproductive Medicine*
- 5 Shen G. and Huang K. (1999). *Treating Infertility with the combination of TCM and Western Medicine*. Beijing: Scientific and Technological Documents Publishing House
- 6 Royal College of Obstetricians and Gynaecologists (Oct 2003). "Scientific Advisory Committee Opinion Paper 5: Immunological Testing and Interventions for Reproductive Failure." Royal College of Obstetricians and Gynaecologists
- 7 Rai, R., Cohen, H., Dave, M. et al. (1997). "Randomised controlled trial of aspirin plus heparin in pregnant women with recurrent miscarriage associated with phospholipid antibodies (or antiphospholipid antibodies)." *British Medical Journal*, 314: 253-257
- 8 Li, T.C., Makris, M., Tomsu, M. et al. (2002). "Recurrent miscarriage: Aetiology, management and prognosis". *Human Reproductive Update*, 8: 463-481
- 9 Lewis, R. (2004). *The Infertility Cure*. London: Little, Brown and Company
- 10 Cocksedge, K.A., Saravelos, S.H., Metwally, M. et al. (2009). "How common is polycystic ovarian syndrome in recurrent miscarriage?". *Reproductive BioMedicine Online*, 19: 572-576
- 11 Hubei University of TCM (1980). *TCM Gynaecology*. Shanghai: Shanghai Scientific and Technology Publishing House.