

Research Status of Chinese Medicine in Treating Recurrent Spontaneous Abortion Caused by Prethrombotic State

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Abstract: The incidence rate of recurrent abortion is increasing day by day, which has an important impact on the physical and mental health, quality of life, and economic pressure of pregnant women and their family members, and requires multi-dimensional and individualized treatment. Prethrombotic state is one of the important causes of recurrent abortion, and it has been paid more and more attention by clinicians. In the treatment of recurrent abortion caused by prethrombotic state, the treatment of traditional Chinese medicine has unique advantages over the treatment of western medicine such as low molecular weight heparin and low dose aspirin. This paper, through literature review and research, combined with the clinical research results of traditional Chinese medicine in the treatment of recurrent abortion in prethrombotic state, this paper expounds the theoretical basis, treatment principles and relevant methods of traditional Chinese medicine in the treatment of this disease, providing a reference for clinicians.

Keywords: Recurrent Spontaneous Abortion; Prethrombotic State; TCM treatment; Research status; Overview

Recurrent spontaneous abortion (RSA) is a recurrent miscarriage of three or more consecutive fetal loss that occurs before 28 weeks of gestation when the fetus is less than 1000 g in weight. For the patients with 2 consecutive spontaneous abortion or biochemical pregnancy, the same attention should be paid to RSA [1]. The etiology of RSA is complex, and after the exclusion of other causes, the prevalence of prethrombotic causes (PTS) is as high as 78% [2]. For the treatment of this disease, western medicine uses low molecular weight heparin and low dose of aspirin for anticoagulation and antiplatelet therapy, but there will be adverse reactions: induration at the injection site, subcutaneous bruising, local skin reaction, itching and other [3]. Compared with simple western medicine treatment, TCM treatment has obvious advantages.

1. Discussion of Traditional Chinese Medicine

Recurrent abortion belongs to the category of "slippery fetus" in the motherland medicine, the main pathogenesis that causes slippery fetus is: Chong Ren virtual loss, fetal yuan is not solid. For PTS, there is no clear corresponding name in Chinese medicine. The results of modern medical research show that the specific mechanism of PTS is the same as the scientific connotation of blood stasis syndrome, and its common internal manifestations are microcirculation disorder [4], so PTS can be classified into the category of "blood stasis syndrome" in traditional Chinese medicine. At the same time, a large number of clinical studies have confirmed that [5], TCM therapy can effectively improve the blood hypercoagulation state, enhance the activity of the fibrinolytic system, and improve the microcirculation.

2. Basic treatment principles of traditional Chinese medicine

One of the important principles in treating RSA caused by PTS is "prevention before occurrence". Treatment should be divided into two stages: pre-pregnancy and post-pregnancy. Before pregnancy, it is necessary to clarify the cause of the disease and adjust it according to the syndrome

differentiation. If the mother has a basic disease, treat it first; Those who have irregular menstruation should adjust their menstruation first. After 3-6 months of conditioning, the symptoms are improved and the menstruation is normal before pregnancy can be resumed. In this way, if the mother's own blood is sufficient, it is easy to conceive and the fetus is strong after pregnancy. After pregnancy, we should immediately start the treatment of protecting the fetus, dynamically observe the situation of the pregnant mother and the fetus, and the treatment period should exceed the previous pregnancy cycle of miscarriage

3. Internal treatment of traditional Chinese medicine

3.1. Theory of Internal Treatment in Traditional Chinese Medicine

Professor Zhang Jinfeng^[6] advocates that RSA caused by PTS is always "kidney deficiency and blood stasis" in traditional Chinese medicine and should be treated by stages. According to the law of the ebb and flow of yin and yang in the menstrual cycle, the blood circulation in the menstrual period should be treated with Zhuyu Decoction; In the later stage, it was given Yangjing Zhongyu Decoction; Guizhi Fuling Decoction was added to help ovulate at menstrual interval; In the early stage of menstruation, we should give a prescription to help pregnancy, and supplement yin and yang; After pregnancy, tonify the kidney and promote blood circulation to prevent miscarriage, and give Taishan Panshi powder plus tonifying the kidney and promoting blood circulation herbs (salvia miltiorrhiza, panax notoginseng, etc.). Chief physician Hu Yuquan^[7] believes that the fundamental pathogenesis of slippery fetus is Chong Ren deficiency damage, which is marked by blood stasis gathered in the uterine pulse. In terms of treatment, it also advocates to treat by stages, regulate Chong Ren, remove blood stasis and eliminate mass before pregnancy, and improve the environment of the uterus and blood vessels. Ma Xu et al.^[8] believed that the method of invigorating the kidney and activating blood circulation was the basic treatment for recurrent abortion caused by prethrombotic state. He was good at starting from the four aspects of invigorating the kidney and activating blood circulation to remove blood stasis, invigorating the kidney and activating blood circulation to invigorate the spleen, and invigorating the kidney and activating blood circulation to clear heat. In clinical practice, Shoutai Pill and Danggui Shaoyao Powder were mostly used for treatment. Professor Lu Qibin^[9] RSA in the treatment of prethrombotic state follows the principle of treatment based on syndrome differentiation and consideration of both symptoms and symptoms. The method of tonifying the kidney and promoting blood circulation, together with the methods of invigorating the spleen, soothing the liver, clearing away heat and so on, often achieve satisfactory clinical results.

3.2. Clinical study on internal treatment of traditional Chinese medicine

Shi Yujiao et al.^[10] carried out a meta-analysis of 11 articles of 796 patients, and the selected literature took the method of invigorating the kidney and activating blood circulation as the treatment group to treat RSA caused by PTS. The results showed that the treatment group had obvious advantages in improving the success rate of fetal protection in early pregnancy, reducing the score of TCM symptoms, and improving the prethrombotic state. Shao Yuan^[11] selected 80 patients with RSA caused by PTS and randomly divided them into two groups. The treatment group was given the method of invigorating the kidney and activating blood circulation on the basis of the control group's simple low-molecular-weight heparin and progesterone fetal protection treatment. The results showed that the treatment group had obvious advantages in embryo survival rate, coagulation-fibrinolysis index and uterine artery hemodynamics ($P < 0.05$). Luo Danfeng et al.^[12] treated 40 patients with recurrent abortion prethrombotic state with traditional Chinese medicine (Chuanxiong, Danshen, Danggui, Sanqi powder, Radix Rehmanniae Preparata, etc.), with a total effective rate of 90%. He Xiaoxia et al.^[13] took the prescription for tonifying the kidney and removing blood stasis (angelica sinensis, salvia miltiorrhiza, ligusticum chuanxiong, dodder seed, mulberry parasitoids, dipsacus, etc.) for 4 weeks, the effective rate of protecting the fetus reached 89%, the decrease of D-dimer after treatment reached 0.65mg/L, and the average platelet count decreased by $220 \times 10^9/L$, which is more effective than the control group. It is believed that Bushen Huayu Formula can also regulate the anticoagulant system to improve the prethrombotic state of recurrent abortion in early pregnancy, and achieve the dual effect of prevention and fetal protection. Wang Dandan^[14] treated patients with recurrent abortion in prethrombotic state with Bushen Gutai Formula, starting from 3 months before pregnancy, with a total effective rate of 87.88%, which is superior to the control group of aspirin combined with prednisone. The prescription for tonifying the kidney and strengthening the fetus mainly includes the

following drugs: dodder seed, salvia miltiorrhiza, prepared rehmannia glutinosa, Dipsacus, mulberry parasitic, safflower, cornus, Chinese yam, achyranthes bidentata, angelica, ligusticum chuanxiong, astragalus, and roasted licorice. Chen Xiangyan et al. [15] used the self-made blood-activating and anti-abortion formula (salvia miltiorrhiza, angelica, ligusticum chuanxiong, red peony, salvia miltiorrhiza, motherwort, ramie root, poria cocos, alisma orientalis) to have a significant effect.

4. External treatment of Traditional Chinese medicine

4.1. Acupuncture therapy

He Tiantian [16] selected 70 patients with kidney deficiency and blood stasis recurrent abortion, random group, western medicine group 3 months before pregnancy to give aspirin treatment (75mg / time, 1 time / day), the test group on the basis of the control group for kidney tongluo acupuncture treatment (Zhongwan, Qihai, Guanyuan, Zhongji, Guilai, Xiawan, Qixue, Taixi, Diji; and with Shenque point ai box moxibustion), after pregnancy didroxyprogesterone was added to protect the fetus. The results showed that the success rate of pregnancy in the test group was 85.7%, which was significantly higher than that of the western medicine group by 65.7%.

Yue Yan [17] also observed 90 cases of RSA patients with positive anticardiolipin antibody by the same method. The results showed that the pregnancy success rate and the negative conversion rate of anticardiolipin antibody in the observation group were significantly better than those in the control group ($p < 0.05$), the rate of threatened abortion in the observation group was significantly lower than that in the control group ($p < 0.05$).

4.2. Acupoint application therapy

Pan Yongmei [18] choose unexplained recurrent abortion patients with 76 cases, the control group to give progesterone treatment, treatment group on the basis of control group given kidney activating Chinese medicine oral + acupoint application, the results show that the treatment group in symptoms of traditional Chinese medicine, uterine placental perfusion status indicators, serum immune regulatory factors have obvious advantages ($P < 0.05$).

Yang Jie et al. [19] selected 90 patients with recurrent abortion due to kidney deficiency and blood stasis, and randomly divided them into three groups: A, B and C, all of which were treated with progesterone for fetal protection. Group A was given aspirin orally (75mg/time, once/day), and Group B was given tonifying kidney and activating blood formula (dodder seed, radix pseudostellariae, mulberry parasitic, donkey-hide gelatin, peach kernel, cooked ground, poria cocos, cassia twig, red peony, Chuanduan, red bark, cornus, atractylodes macrocephala, etc.) on the basis of it, while Group C was given acupoint application therapy (acupoint selection: Shenshu, Yongquan, Gongsun) for 12 weeks. The results showed that the comparison of TCM syndrome scores, the negative rate of anticardiolipin antibody, the total effective rate, and the blood indexes (blood chorionic gonadotropin, progesterone, and the maximum platelet aggregation rate) were all superior to group C ($P < 0.05$).

5. Summary

RSA caused by PTS is a clinical research hotspot. TCM treatment has obvious advantages: Internal treatment of traditional Chinese medicine: conditioning by stages before pregnancy, tonifying the kidney and activating blood circulation after pregnancy; External treatment of traditional Chinese medicine plays a role through acupuncture, acupoint application and other characteristic therapies. Although modern doctors have many experiences and discussions, in fact, they are not divorced from the treatment principle of "prevention before occurrence". In the pre pregnancy nursing care, it is also necessary to promote the recovery of the uterus, intervene early, correct the causes, and adjust menstruation; After pregnancy, strengthen the kidney and calm the fetus, and promote blood circulation and remove blood stasis. The menstrual cycle of pre pregnancy conditioning is also adjusted according to the characteristics of yin, yang, qi and blood in different menstrual cycles. It can be seen from clinical trials that traditional Chinese medicine treatment has obvious advantages in improving the symptoms of patients, and the combination of traditional Chinese and western medicine has more significant advantages in pregnancy outcomes, which is worth recommending in clinical practice.

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