

Case Report

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The Effectiveness of Acupuncture in The Treatment of Threatened Miscarriage Caused by Covid -19: A Case Report

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Abstract

Objective: This article presents a case report on acupuncture in the treatment of threatened miscarriage caused by Covid -19. The patient, a 33 - year- old woman, G4P0A3, pregnant 5w2d, presented at our clinic with vaginal bleeding and abdominal pain after contracting Covid-19. Her main complaints were fatigue, stress, anxiety, and insomnia. Her tongue was swollen and pale with a white coating and teeth marks on the sides; the sub- lingual veins were dark red; her pulse was slippery, thin and deep.

Results: The patient received a total of 31 acupuncture treatments during her entire pregnancy. As a result, the vaginal bleeding stopped, the abdominal pain disappeared, and her general health improved. She did all of the tests and exams during her pregnancy and had healthy results. She gave birth naturally to a healthy baby girl on July 30th, 2021.

Conclusions: Acupuncture reduced her symptoms of threatened miscarriage and common complications during pregnancy. This case suggests that acupuncture is an effective and safe therapeutic approach for threatened miscarriage caused by Covid -19. Acupuncture can decrease the risk of miscarriage.

Keywords: Covid-19, Threatened Miscarriage, Acupuncture.

Introduction

Threatened miscarriage (TM), also called threatened abortion, is vaginal bleeding that occurs in the first 20 weeks of pregnancy. The bleeding is sometimes accompanied by abdominal cramps. A threatened miscarriage is a condition that indicates the potential for a miscarriage or early pregnancy loss before the 20th week of pregnancy [1]. Threatened miscarriage is one of the most common complications causing pregnancy loss, and it affects approximately 20% of confirmed pregnancies [2].

Threatened miscarriage is called fetal leakage or fetal irritability in Traditional Chinese Medicine (TCM) [3]. The etiology and pathogenesis of TM are the deficiency of spleen and kidney qi, the insufficiency of qi and blood, and the lack of firmness in the Chong and Ren meridians. Invigorating the kidney is the foundation of treatment. Threatened miscarriage is one of the most common gynecological issues. There are four main conditions in TCM that can lead to threatened miscarriage: kidney deficiency, qi and blood deficiency, accumulation of excess blood heat, and injury. Among them, kidney deficiency accounts for about 52.8% of all conditions [4].

Clinical research reports that acupuncture can be used as a potential treatment for threatened miscarriage in early pregnancy [5]. In addition, the research shows that acupuncture is a viable intervention to reduce clinical symptoms of threatened miscarriage, including anxiety due to vaginal bleeding, abdominal and

back pain [6]. The results of a meta-analysis showed that after acupuncture, the status of pregnant women and fetuses improved in the short term. Therefore, it can be said that acupuncture and moxibustion have a good curative effect on threatened miscarriage [7]. Acupuncture can also promote the secretion of progesterone and increase the content of progesterone receptors in the uterus, thereby promoting the luteal function and development during gestation, and playing a role in protecting the fetus [8].

The author applies acupuncture and moxibustion to treat a woman with threatened miscarriage symptoms caused by the infection of Covid-19. The clinical case is reported as follows.

Clinical Case

General Information

Jessica, 33 years old, a hospital nurse. She first presented on December 1, 2020. Chief complaint: vaginal bleeding in the 5th week of pregnancy.

Medical History

3 recurrent miscarriages of 6-8weeks between July 2018 and June 2020 (causes unknown). Menarche age was 13 years old. The menstrual cycle was 28 days with dysmenorrhea at cycle days 1-3. Her last menstrual period (LMP) started on October 25, 2020. The first 3 pregnancies were all unsuccessful even with progesterone. Therefore, the patient sought TCM acupuncture

ture as an alternative treatment. She also contracted Covid-19 in mid-November 2020, which mainly manifested as fever, dry cough, nasal congestion, runny nose, sore throat, muscle pain and diarrhea. After having recovered from COVID-19, she experienced certain symptoms like fatigue, muscle pain, memory loss, concentration problems, and insomnia. She also had conditions unrelated to Covid such as low iron level and scoliosis.

Main Symptoms

Repeated vaginal bleeding of a dark red color about 5 ml each time, bloating in the lower abdomen, fatigue and desire to lie down, abdominal pain and backache with fatigue and shortness of breath, pale complexion, palpitation, insomnia, anorexia, anxiety. She usually went to bed late at midnight, liked to eat raw vegetables, and had three meals at irregular times. She was sensitive to cold weather, often had cold hands and feet, frequent nocturnal urination, frequent low back pain, abdominal distension after meals, dark circles under her eyes. Her tongue was pale with a thin white coating, and tooth marks around the sides, the sub-lingual blood vessels were dark red, and her pulse was slippery, thin and deep.

TCM diagnosis and differentiation: threatened miscarriage due to Yang deficiency of spleen and kidney, blood and qi deficiency, debility of Chong and Ren Meridians, disharmony between heart and kidney.

Treatment strategy for acupuncture and moxibustion: invigorate the yang of kidney and spleen, nourish qi and blood, consolidate Chong and Ren Meridians, soothe the spirit and calm the mind, create harmony between heart and kidney.

Acupuncture Points

Group 1 Body points: DU20 (Baihui), DU24 (Shenting), RN17 (Tanzhong), RN12 (Zhongwan), RN6 (Qihai), RN4 (Guanyuan), SP10 (Xuehai), SP9 (Yinlingquan), SP4 (Gongsun), ST25 (Tianshu), ST36 (Zusanli), LR13 (Zhangmen), PC6 (Neiguan), KI7 (Fuliu), LU9 (Taiyuan),

Group 2 Auricular points: lung, heart, liver, spleen, kidney.

Group 3 Moxibustion point: SP1 (Yinbai).

Functions of Acupoints

DU20 (Baihui), DU24 (Shenting), RN17 (Tanzhong): calm the mind.

RN6 (Qihai), RN4 (Guanyuan), SP10 (Xuehai): promote qi and blood circulation; strengthen primordial qi, regenerate vitality ST25 (Tianshu), ST36 (Zusanli), RN12 (Zhongwan), SP9 (Yinlingquan): invigorate spleen and stomach qi.

SP1 (Yinbai), LR13 (Zhangmen): Spleen controls blood and liver stores blood, these two points working together can stop vaginal bleeding.

PC6 (Neiguan) and SP4 (Gongsun): soothe abdominal qi, regulate Chong and Ren Channels.

KI7 (Fuliu) and LU9 (Taiyuan): invigorate the kidney qi and replenish lung qi; KI7 (Fuliu) is the gold (Jin) point of the kidney meridian, LU9 (Taiyuan) is the original (Yuan) point of the lung meridian. According to the theory of the five Zang (organs) in TCM, kidney is the son of the lung, and lung is the mother of kidney. Complementing these two acupoints reinforces the mother viscera to treat the deficiency in the child viscera.

DU20 (Baihui) and RN17 (Tanzhong): this pair of points elevates qi and moves qi upwards.

SP1 (Yinbai): using moxa on SP1 can stop uterine bleeding.

Auricular acupoints correspond to the five internal organs of the human body.

Group 1, 2, 3 acupoints are used together to stop vaginal bleeding, relieve abdominal and lower back pain, and prevent miscarriage.

Treatment Frequency

The frequency of acupuncture and moxibustion treatment was based on the three trimesters of pregnancy: first, second and third.

First trimester (5-12 weeks): twice a week, total 16 times.

Second trimester (13 to 28 weeks): once a month, total 4 times.

Third trimester (29 to 39 weeks): once a week, total 11 times.

Manipulation

After disinfecting all points with a cotton ball dipped in 75% alcohol, the order of inserting the needles is from the lower limbs to the abdomen, starting on the left side and finishing on the right side. Disposable sterile needles, size 0.25 x 25mm, are used and are inserted perpendicularly in all points to a depth 10 to 15mm with the tonification method. Needles remain inserted for 30 minutes each session. Acupuncture points are needled bilaterally and alternately, and a TDP lamp is used on the belly during the session.

The position for acupuncture during pregnancy varies based on the comfort of the patient; the patient either lies on her back or on her left side.

Results

After receiving 5 acupuncture treatments during the first trimester, the vaginal bleeding had stopped, the patient's spirit improved, backache and abdominal pain disappeared; and the patient's overall health improved (better energy, good mood, deeper sleep, and a normal appetite). Ultrasound scans at 9 weeks confirmed the normal development of the gestational sac, the yolk sac and the fetal pole. During pregnancy, a series of examinations were done with healthy result including Nuchal translucency (NT) ultrasound at 14 weeks of pregnancy, Ultrasound (Anatomy Scan) at 20 weeks, and at 22 weeks a screening for Down syndrome. Acupuncture treatments continued until one week before delivery, and the patient gave birth to a healthy baby girl on July 30, 2021.

Discussion

Based on TCM theory, the acupuncture and moxibustion treatment strategy to treat women who have symptoms of threatened miscarriage is to focus on treating the qi in the kidney, spleen, and liver, the reference to which is found in the following sources. First of all, the centrality of the kidneys to pregnancy was written about during the late Qing Dynasty by the renowned TCM doctor Zhang Xichun in the Medical Records of Chinese and Western Medicines (in Chinese: 医学衷中参西录): "Both male and female fertility depends on the essence of kidney. Therefore, kidney essence is the basis of fertility; the kidney qi is the key to achieving a perfect pregnancy. The exhaustion of Tiangui (kidney essence) mainly dominates the rise and fall of reproductive

function under the influence of kidney qi.” Second, Fu Shan of the Qing Dynasty states in his famous treatise *Fu Qingzhu's Obstetrics and Gynecology* ((in Chinese: 傅青主女科): “The spleen is acquired, the kidney is innate. The spleen cannot generate without innate qi. The essence of the kidney cannot be generated if the spleen cannot be nourished. Therefore, nourishing the spleen means invigorating the kidney. The spleen and kidneys must be replenished in order to consolidate the qi and blood of the foetus.” In addition, “Although the foetus is tied to the belt vessel (Dai Mai Meridian), it is related to the spleen and kidney. If the spleen and kidney are deficient, the belt vessel is weak, and the foetus is incompetent.” And lastly, Chao Yuanfang of the Sui Dynasty mentioned in his book *General Treatise on Causes and Manifestations of All Diseases* (in Chinese: 诸病源候论): “If the mother (pregnant woman) is sick, then this will cause the foetus to be irritable and to move in the uterus. If the foetus is not firm, this will also make the mother sick.” It is proposed that the health of the mother is closely related to that of the foetus. Related to the spleen and stomach, the treatise *The Theory of the Spleen and Stomach* (in Chinese: 脾胃论) by TCM Master Li Dongyuan from the Ming Dynasty states that “all diseases are caused by the decline of the spleen and stomach.”

In TCM theory, the spleen dominates and controls the blood. If spleen qi is deficient, then it cannot control the blood, which can easily lead to bleeding and threatened miscarriage (called “fetal leakage or fetal irritability” in TCM). The Chong Mai meridian regulates the qi and blood of the twelve meridians, so it is called the “sea of blood”. The Ren Mai meridian governs the uterus and gestation, and all the yin meridians, so it is called “the sea of yin meridians”. The Chong Mai and Ren Mai meridians are indirectly connected to the liver, spleen and kidney. Fetal leakage is a sign of debility of the Chong and Ren Meridians. Therefore, TCM believes the etiology and pathogenesis of threatened miscarriage (fetal leakage) are kidney deficiency, spleen deficiency, qi and blood deficiency, blood heat, or blood stasis. The treatment strategy is to invigorate the qi of the kidney and spleen and promote the qi of the innate and acquired to consolidate the foetus. Whether the foetus can develop normally and to term depends on the prosperity and decline of the Chong and Ren meridians. Chong Mai is the sea of blood, and Ren Mai is the master of the uterus, so if the qi of Chong Mai and Ren Mai is full, the blood will be nourished, and the foetus can develop normally.

The patient had a history of 3 recurrent miscarriages between 2018 and 2020, which shows a weak body with a deficiency of qi in the spleen and kidney. After conception, the infection of Covid-19 depleted the foetus, resulting in weakness of the qi of the spleen and stomach, and insufficient qi and blood. Even after the Covid PCR test returned negative, she was still very tired, panicked and anxious, which caused the debility of Chong and Ren Meridians and, consequently, vaginal bleeding. Following the treatment principle of “treating deficiency syndrome with tonifying method” (in Chinese 虚则补之), the author uses acupuncture to invigorate the yang of kidney and spleen, nourish qi and blood, consolidate Chong and Ren Mai meridians, soothe the spirit and calm the mind, and create harmony between the heart and kidney in order to stop the bleeding and soothe the foetus. The acupuncture points used in this case include the following: body points Baihui, Shenting, Tanzhong, Qihai, Guanyuan, Xuehai, Tianshu, Zhongwan, Zusanli, Yinlingquan, Zhangmen, Neiguan, Gongsun, Fuli, Taiyuan, Yinbai; and auricular points

lung, heart, liver, spleen, kidney. The selected group of points were used together to replenish the innate kidney qi and the acquired spleen and stomach qi. Once the kidney qi is sufficient, the qi and blood are prosperous in the uterus, and then the foetus is safe.

Acupuncture is one of the treatments characteristics of TCM. By strengthening the qi of the spleen and kidney, nourishing the liver and kidney, and invigorating the foetus, acupuncture and moxibustion not only can improve and stop vaginal bleeding, abdominal pain, lower back pain and so on, but it can also promote the luteal function and support the development of the foetus⁸. Therefore, acupuncture can be used as an alternative therapy for threatened miscarriage. Acupuncture and moxibustion are safe and effective treatments to protect the foetus and prevent miscarriage.

Prevention

Self-care is always important during pregnancy to help prevent miscarriage. It is important to adjust one's lifestyle by eliminating raw food, cold drinks, sugar, coffee and alcohol; going to sleep early; quitting smoking; limiting one's exposure to toxic chemicals and environments; avoiding dangerous situations and activities; and not ruminating as peace of mind is important during pregnancy.

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References

1. Miscarriage - threatened: MedlinePlus Medical Encyclopedia.
2. Robinson, G. E. (2014). Pregnancy loss. *Best practice & research Clinical obstetrics & gynaecology*, 28(1), 169-178.
3. Ma Baozhang (2004) *Gynecology in Traditional Chinese Medicine*. Beijing: Beijing Science Press, 2004:160
4. Xu Xiaofeng, Zhu Yunpu, Ge Hua et al. Study on the distribution pattern of TCM syndrome types in 1315 cases of early threatened abortion. *Jiangsu Traditional Chinese Medicine*, 2015, 47 (5): 37-40.
5. Betts, D., Smith, C. A., & Hannah, D. G. (2012). Acupuncture as a therapeutic treatment option for threatened miscarriage. *BMC complementary and alternative medicine*, 12(1), 1-7.
6. Betts, D., Smith, C. A., & Dahlen, H. G. (2016). Does acupuncture have a role in the treatment of threatened miscarriage? Findings from a feasibility randomised trial and semi-structured participant interviews. *BMC pregnancy and childbirth*, 16(1), 1-10.
7. Li Yanzhong, Yang Kailin, Tan Haizhen (2018) A systematic review and meta-analysis of the efficacy and safety of acupuncture in the treatment of threatened abortion. *Hunan Journal of Traditional Chinese Medicine*, 34(7): 164-169.
8. Tang Haixia, Shi Yaping (2009) Acupuncture in the treatment of 85 cases of infertility with luteal insufficiency. *Yunnan Journal of Traditional Chinese Medicine*, 30(12): 52.

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