

Research on Origin and Development of Postpartum Diarrhea

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Abstract: *This paper provides an in-depth study of the origins of postpartum diarrhea, discussing the history, etiology and treatment of the condition. Through combing ancient literature, it was found that postpartum diarrhea was closely related to the weakness of the woman's qi and blood, incomplete expulsion of postpartum lochia, and physical factors. Medical practitioners of all generations have emphasized the importance of regulating the spleen and stomach, resolving blood stasis and generating new blood, and tonifying the kidneys to consolidate the fundamentals in treatment. This article aims to provide useful references for clinicians for guiding clinical practice.*

Keywords: Postpartum diarrhea, Origin and development, Name of disease, Etiology and pathogenesis, Treatment.

1. Introduction

Postpartum diarrhea refers to an increase in the frequency of stools after giving birth, dilute stools, or even diarrhea like water. In traditional Chinese medicine, postpartum diarrhea is also known as "postpartum xie", "postpartum xiali", "postpartum li" and so on. Alternatively, it is sometimes collectively referred to as "postpartum xieli" along with postpartum dysentery. In Western medicine, this condition is simply known as "postpartum diarrhea". In the Qing Dynasty, Zhang Lu's "Zhang Shi Yi Tong" stated: "Among all postpartum diseases, vomiting, night sweating, and diarrhea are urgent, and all three are equally dangerous [1]." Zhang was the first to propose postpartum diarrhea as one of the three postpartum emergencies. He emphasized that diarrhea is a great contraindication after childbirth, as it can easily deplete body fluids and lead to qi and blood deficiency. In severe cases it can cause dehydration, depletion of yin fluids, loss of nourishment for the mind, and even symptoms of fainting. Therefore, it must be treated with caution.

After childbirth, women may experience qi and blood depletion, weak spleen and stomach, and are prone to postpartum diarrhea. If the diarrhea persists, a significant amount of essential nutrients from water and grains will be lost, resulting in insufficient essence and blood for women, making it difficult to nourish the body. This leads to disharmony between qi and blood, difficulty in restoring organ function, obstruction of milk production, and damage to infant health. Ancient doctors attached great importance to obstetric and gynecological diseases, with specialized articles and books. The author consulted ancient literature and discussed the relevant disease types, causes, mechanisms, and treatments for clinical reference.

2. Disease Name

Postpartum diarrhea was first documented in the "Shengji Zonglu" compiled by the Imperial Medical Academy of the Song Dynasty, and subsequent generations of medical practitioners mostly adopted this terminology. However, the

names of diarrhea diseases recorded in medical books throughout history are different; so the names of postpartum diarrhea diseases have also changed accordingly. During the Qin and Han dynasties, there was only a description of the symptoms of diarrhea, as stated in the "Su Wen": "Long summer does not disease hole leakage cold in the middle, autumn does not disease wind malaria, winter does not disease arthralgia syndrome, swill diarrhea and sweat also." Because of the limited development of gynecology at that time, there was no mention of postpartum diarrhea, until the discussion of postpartum diseases emerged during the Sui and Tang dynasties. The Sui Dynasty's Chaoyuan Fang's "Various Pathogenic Designate Theory" referred to this disease as postpartum dysentery, which is equivalent to contemporary postpartum diarrhea and postpartum dysentery diseases. The cloud: "postpartum deficiency is not leveled off and rise early, injured in the wind cold, wind cold to take advantage of the weakness into the large intestine, intestinal deficiency is leakage, so that dysentery also [2]." In the Decoction Dynasty, only the name postpartum dysentery was used, but the description of postpartum dysentery often referred to purulent and bloody stools, with alternating red and white. For example, in Sun Simiao's "Thousand-Golden-Prescriptions" during the Decoction Dynasty, it was said: "To treat postpartum dysentery, red and white, abdominal pain, the prescription of Danggui Decoction was used [3]." By the Song Dynasty, traditional Chinese medicine obstetrics and gynecology flourished and became an independent specialty. The name of postpartum diarrhea also officially appeared, and a dedicated chapter was dedicated to discussing it. For example, in the "Shengji Zonglu" [4] Volume 164 - Postpartum Gate, there is a chapter on postpartum diarrhea.

With the development of traditional Chinese medicine, people's understanding of diseases is becoming increasingly profound. In the Qing Dynasty, it was clearly stated that there was a difference between postpartum diarrhea and general diarrhea. Wang Wenqi's "Za Zheng Hui Xin Lu" in the Qing Dynasty stated: "Internal and external factors separate the two gates, and everywhere it is pointed out that postpartum diarrhea is different from ordinary diarrhea, and the essence

does not grind [5]."

3. Etiology and Pathogenesis

The understanding of the etiology and pathogenesis of postpartum diarrhea by medical practitioners throughout history can be mainly classified into three categories. 1. Postpartum lochia is not clean, and residual blood seeps into the large intestine, affecting its conduction function. 2. Postpartum depletion of qi and blood, weakness of the intestines and stomach, loss of healthy movement of the spleen and earth, external wind-cold or internal injuries to food and drink, resulting in malfunctioning of the conduction function. 3. Postpartum blood loss can damage the yin qi in the kidneys, consume the yang in the kidneys, and lead to deficiency of both yin and yang in the kidneys.

3.1 Retention of Postpartum Lochia

According to Wei Yilin's "Shiyi Dexiao Fang" during the Yuan Dynasty, the residual blood in the postpartum uterus was not discharged in a timely manner, and these residual blood seeped into the large intestine, leading to dysfunction of the colon's conduction function and causing diarrhea. The book states: "treatment of post-partum diarrhea, the evil dew does not work, this remaining blood seepage into the large intestine for diarrhea, points over the healing, although the hole leakage is not prohibited, under the green and black things are also tested [6]." The "Zhang's Gynecology" also mentions that postpartum excess blood seeps into the large intestine as the mechanism of diarrhea, saying, "Postpartum diarrhea, abdominal pain, and urgent and astringent bowel movements can also cause blood stasis into the large intestine [7]." In addition, postpartum qi and blood stasis, intestinal obstruction, and symptoms of urgent and astringent bowel movements may also occur. "

3.2 Weakness of the Stomach and Intestines

3.2.1 Depletion of qi and blood, lack of health of the spleen and earth

In the Qing Dynasty, Wang Wenqi's "Za Zheng Hui Xin Lu" delved into the etiology and pathogenesis of postpartum diarrhea, explaining it from three aspects: spleen and stomach blood deficiency generating fire, qi deficiency generating cold, and qi and blood internal emptiness. The book states: "If the blood in the spleen is deficient and there is a fire, it will be forced to rush through the large intestine; If the spleen is deficient and cold, it will be derelict in its operation and will not be able to complete the valley. After giving birth, the qi and blood are empty, and the stomach of the person who eats and drinks cannot change the subtlety to rise and clear and reduce the turbidity, and it is often discharged, which will inevitably lead to more depletion of yin, and the benefit of long-term depletion of yang [5]." Wang further emphasized the close relationship between the spleen and the fetus, believing that the fetus depends on the blood in the spleen, and the blood in the spleen will be consumed by the fetus, which is one of the reasons for postpartum qi and blood weakness. The book states: "The fetus is born in the spleen, and the blood in the spleen is consumed by the fetus [5]." In the Qing Dynasty, Chen Jiayan's "Gynecological Secretary" wrote: "Postpartum diarrhea

cannot be treated together with miscellaneous diseases. It is most likely caused by weak qi and dereliction of duty in transmission." [8] It is also believed that the pathogenesis of this disease lies in weak spleen and stomach, and loss of transmission.

3.2.2 Affliction by exogenous wind-cold

The Sui Dynasty's Chaoyuan Fang's "Various pathogenic designate theory" first described the etiology and pathogenesis of postpartum diarrhea, stating: "Labor injury leads to extreme blood qi deficiency, and wind cold takes advantage of it, entering the intestines and stomach. Intestinal deficiency leads to sudden cold, while intestinal deficiency leads to diarrhea. When encountering extreme cold deficiency, it becomes cave dysentery (Li) [2]." It is pointed out that postpartum qi and blood weakness, gastrointestinal dysfunction, and invasion of wind cold evil energy are the main causes of postpartum diarrhea. Similarly, Chen Ziming's "Furen Daquan Liangfang" from the Song Dynasty recorded: "Postpartum gastrointestinal deficiency and coldness are easily invaded [9]." further emphasized the characteristic of weak gastrointestinal function in postpartum women.

3.2.3 Internal injury diet

In the Song Dynasty's "Shengji Zonglu", it is believed that postpartum women have weak qi and blood, abnormal spleen and stomach function, leading to the stagnation of water and valleys, and the formation of diarrhea. The book states: "Postpartum Qi and blood are both deficient, and diet is prone to injury and movement. The spleen and stomach are not harmonious, and water and grains do not dissolve, resulting in abdominal distension and intestinal ringing, leading to diarrhea." [4] "Zhang's Gynecology" points out that "It is mostly due to mistakenly eating raw, cold and hard things, fighting with bad blood, flowing into the large intestine, and not being able to restrain and transform it." [6] It is believed that eating raw, cold, and hard substances can easily damage the spleen and stomach, leading to abnormal circulation. Food and the body's evil blood compete, forming pathological substances such as phlegm dampness and blood stasis, which flow into the large intestine and affect its transmission function. According to Xue Ji's "Nvke Cuoyao" in the Ming Dynasty, "Postpartum dysentery (Li) may be caused by dietary damage to the spleen and soil, or due to spleen deficiency that cannot be digested, and should be treated after examination." [10] In the Qing Dynasty, Yan Chunxi's "Fetal Birth Heart Method" also emphasized the close relationship between postpartum spleen and stomach and diet. The book states: "Those who fail to transform their grains due to labor fatigue and damage to the spleen during childbirth, resulting in delayed transmission... Now, due to labor fatigue and damage to the spleen, the Qi of Chonghe cannot be transformed, and the matter is completely discharged. The disease is called 'dinner diarrhea'. They also eat too much, causing damage to the spleen and stomach, resulting in the failure to transform their grains, commonly known as 'water valley dysentery'." [11]

In short, the fundamental cause of postpartum diarrhea lies in the deficiency of qi and blood, with wind cold evil energy and internal injury diet as the main pathogenic factors, and

gastrointestinal dysfunction as the key to the pathogenesis.

3.3 Kidney Yin Yang Deficiency

In the Qing Dynasty, Wang Wenqi's "Za Zheng Hui Xin Lu" pointed out that the causes of postpartum diarrhea not only include spleen and stomach weakness, but also are closely related to postpartum kidney yin and yang deficiency. The book states: "As for the kidney as the source of vitality, fire can generate the spleen and soil, which is the foundation of life. If too much blood is removed after childbirth, it will damage the yin qi in the kidney, and if blood is consumed, it will damage the yang in the kidney. In cases of yin deficiency, fire will punish the metal, causing cough in the upper part, heat in the lung deficiency moving to the large intestine, and release in the lower part." [5]

4. Treatment

Postpartum diarrhea has similarities with other internal injuries, but there are also differences. Lochia in postpartum women is its characteristic, and excessive postpartum blood loss is also its difference from other types of diarrhea. Therefore, medical practitioners throughout history have had many treatments for lochia. The spleen and stomach are the source of qi and blood biochemistry, with the function of secreting clear and distinguishing turbid substances. Weakness of the spleen and stomach is one of the important reasons for diarrhea, so medical practitioners throughout history attach great importance to caring for the spleen and stomach. Excessive postpartum blood loss can damage the yin qi in the kidneys. Due to blood consumption, the yang in the kidney is damaged. Long term illness damages the kidneys, which are the key to the stomach. Medical professionals throughout history have also attached great importance to the treatment of the kidneys. In short, each household has its own treatment method, but the treatment ideas are generally the same.

4.1 Pay Attention to Lochia, Unblock the Orifices and Promote Blood Circulation

Postpartum diarrhea is an unusual type of diarrhea. According to the special characteristics of a woman's postpartum constitution, Chen Ziming in the Song Dynasty quoted a unique dispersion from "Zhang Shi" in Volume 22 of "Furen Daquan Liangfang" [9]: four or five ears of Jingjie (burned to ashes by internal fire, not to offend oil fire) and a small amount of musk. This formula is used to treat postpartum lochia and residual blood seeping into the large intestine and causing diarrhea. In the Qing Dynasty, Fu Shan's "Fu Qing Zhu Nu Ke" [12] believed that if postpartum lochia is unclean, it is difficult to replenish, eliminate, and dry. The first recorded "Shenghua Decoction" is a formula that adds Poria cocos and has the effect of removing blood stasis and promoting diuresis. It is then treated according to the symptoms to prevent stagnation, dryness, and deficiency. In the Qing Dynasty, Yan Chunxi's "Fetal Birth Heart Method" [11] also used Lianzi Shenghua Decoction to treat postpartum blood stasis and internal obstruction diarrhea. In the "Nvke Qieyao" [13] passed down by the monks of Zhulin Temple in the Qing Dynasty, it is mentioned that the treatment method for lochia that cannot be cured is to use blood. In the Qing

Dynasty, Zheng Yuanliang supplemented this by using blood activating drugs such as Guiwei, Chishao, Taoren, and Honghua in his "Zheng's family heirloom female scholar Wan Jinfang" [14].

4.2 Strengthening the Foundation and Nourishing the Essence, Harmonizing the Spleen and Stomach Functions

For postpartum diarrhea, doctors often treat it by tonifying the middle qi and promoting the spleen and stomach. As Xue Ji, a medical expert in the Ming Dynasty, wrote in "Nvke Cuoyao", the basic formulas were Bu Zhong Yi Qi Decoction and Liu Jun Zi Decoction. These two formulas are mainly used to regulate the symptoms of spleen and stomach weakness and insufficient middle qi. The book states: "If you are injured by eating rice, use the six rulers to add grain tillers. If you are injured by eating flour, use the six rulers to add wheat tillers. If you are injured by eating meat, use the six rulers to add hawthorn, divine yeast... If liver wood is used to attack the spleen soil, use the six rulers to add Chaihu, and cannon ginger." [10] Among them, grain tillers, wheat tillers, hawthorn, and divine yeast can digest and transform the accumulation, strengthen the spleen and stomach."; Chaihu and Paojiang can soothe the liver, regulate qi, and regulate the spleen and stomach. In addition, it is mentioned that diarrhea caused by the invasion of cold pathogens into the spleen and stomach can be treated with Qian's Yihuang Powder, which has the effects of warming the middle and dispersing cold, promoting qi circulation, and relieving pain. In the Ming Dynasty's "Wanshi Women's Science", it is recorded that the formula is based on the Li Zhong Decoction, which states: "postpartum Qi deficiency... diarrhea persists, and Li Zhong Decoction is the main formula. If there is no relief, add nutmeg (bread simmering), mince, honey balls, and rice to drink." Wan Shi uses Li Zhong Decoction to warm the middle and dispel cold, invigorate the spleen and stop diarrhea, while adding nutmeg to enhance the function of warming the middle and stopping diarrhea. In the Ming Dynasty Huangfu's "Mingyi Finger Palm", The book states: "Postpartum diarrhea, Junling decoction. It carries cold, abdominal pain and intestinal ringing, small water is clear and white without turbidity, and the mouth is not thirsty. It is added with nutmeg, simmering cinnamon, and stir fried peony." [16] In the Qing Dynasty, Wu Daoyuan's "Nvke Qieyao" emphasized that the treatment of this disease should mainly focus on tonifying the spleen, saying: "Kentang said: Postpartum diarrhea should not be mixed, mainly tonifying the spleen. Examples include Atractylodes macrocephala, Poria cocos, Shenqu, licorice, and Decoctionerine peel, supplemented with medicines that promote digestion and regulate qi." [13]

4.3 Do not Ignore the Method of Tonifying the Kidney

Kidney deficiency caused by various reasons after childbirth in women is also an important cause of diarrhea, emphasizing the importance of not blindly supplementing soil. In the book "Chishui Xuanzhu" by Sun Yikui of the Ming Dynasty [17], the formula "Wuweizi San" is used to treat kidney or kidney diarrhea or diarrhea caused by the Five Gengs. The formula "Wuweizi" is astringent and astringent, while "Wuzhuyu" is warm and dispelling cold. If spleen deficiency and kidney lead to diarrhea, Four God Pills or Two God Pills can be used. Among them, broken paper (psoralen) and nutmeg are mainly

used to warm the kidneys and spleen, *Schisandra chinensis* has a astringent effect, and *Wu Zhuyu* can warm the middle and dispel cold. However, the Ershen Pill eliminates *Schisandra chinensis* and *Fructus Evodiae*, resulting in a slightly weaker effect. The combination of the two can enhance the spleen strengthening effect of jujube meat cooked with ginger, and make it into pills for easy consumption.

4.4 Treatment Contraindications

4.4.1 Non profit from water

Special caution should be exercised in the treatment of postpartum diarrhea. After childbirth, the mother's qi and blood have already been depleted, and her body is in a weak state. If the method of promoting diuresis is used at this time, it may consume the patient's qi and blood, and worsen the condition. Furthermore, spleen and stomach weakness is an important pathogenesis of diarrhea, and the method of promoting diuresis may further damage the spleen and stomach, exacerbating the symptoms of diarrhea. As stated in the "Wang Xugao clinical medical book": "Postpartum diarrhea should not be treated with diuretic drugs, but with *Buzhong Yiqi Decoction*." [18] In the treatment, the main focus should be on regulating the spleen and stomach, protecting stomach qi, and using diuretic drugs with caution.

4.4.2 Contraindications to medication

In the Ming Dynasty, Miao Xiyong's "Shennong Bencao Jingshu" [19] detailed the contraindications for medication for postpartum diarrhea, including drugs for dispelling dampness, smoothing the intestines, moistening the diaphragm, dispersing, generating cold, breaking qi, and bitter cold. These drugs have different properties and effects, but they are not suitable for treating postpartum diarrhea. Because they may further deplete qi and blood, exacerbate spleen and stomach weakness, and thus exacerbate diarrhea symptoms. In addition, some herbal books also record some medicines, such as *Rehmannia glutinosa*, *Angelica sinensis*, *Turtle Armor*, *Magnolia officinalis*, and so on, which need to be used with caution when treating postpartum diarrhea. Although raw *Rehmannia* can nourish and moisten the lungs, its effect tends to decrease and is not conducive to the recovery of postpartum qi and blood; *Angelica sinensis* has the effect of moistening the intestines and promoting bowel movements, which may worsen the symptoms of diarrhea; *Turtle Armor* is the main injurious to the middle, and *Houpu* is specialized in eliminating and inducing, which are not suitable for the treatment of postpartum diarrhea. At the same time, Feng Zhaozhang's "Feng Shi Jin Nang Mi Lu" from the Qing Dynasty also pointed out that although the *Ophiopogon japonicus* can nourish dry lung, strong water, but special leakage and not special collection, not to be taken by those who are cold and have dampness in the middle, cold spleen and stomach, post-partum diarrhea is contraindicated.

In summary, postpartum diarrhea is differs from common diarrhea. Due to the deficiency of qi and blood in postpartum women, their physical condition is special. Moreover, postpartum lochia is not completely cleared, and residual blood seeps into the large intestine, which is the unique pathogenesis of the disease. Therefore, in treatment, it is

necessary to pay attention to regulating the spleen and stomach, while also taking into account the removing stasis and promoting regeneration. Meanwhile, spleen deficiency can affect the kidneys, leading to both spleen and kidney disorders, do not ignore diarrhea caused by kidney deficiency.

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