# **Analysis Review of Clinical Application Research of Sanwu Beiji Wan**

# Wu Yulan<sup>1</sup>, Wang Xiaochen<sup>1</sup>, Yang Ying<sup>1</sup>, Feng Wanyi<sup>1</sup>, Guo Wei<sup>2</sup>

<sup>1</sup>School of Pharmacy, Shandong University of Traditional Chinese Medicine, Jinan 250355, Shandong, China

ABSRTACT. In this paper, the clinical application and experimental research literature of Jingfang Sanwu Beiji Wan was collected by searching the HowNet Periodicals Database. After finishing and finding out, Sanwu Beiji Wanyuan Formula is used to treat 100 cases of stroke and bloating, and modern clinical is often used to treat chronic indigestive enteritis, lead colic, intestinal obstruction, dysmenorrhea, facial and hands and feet Acute purulent infection and other diseases, and the effect is significant, the clinical can be used as a basis for reference. However, due to the toxicity of the croton contained in the recipe, its use has decreased significantly in recent years. However, croton also has its unique role. It can be used cautiously in the case of accurate clinical dialectics, strict control of its dosage and contraindications to ensure safety, effectiveness and non-toxicity.

KEYWORDS: Sanwu beiji wan, Intestinal obstruction, Lead colic, Review

#### 1. Introduction

The clinical treatment of traditional Chinese medicine has very distinctive characteristics, focusing on the overall concept and dialectical treatment. Among them, the treatment of different diseases is the treatment method with Chinese characteristics. In this article, according to the concept of treating different diseases and treating the same, taking Sanwu Beiji Wan as a research object, by searching the HowNet database, the literature on San Wu Bei Ji Wan's treatment of various diseases and syndromes is collected, and the clinical application of Jingfang[1] is emphasized. Combined with the progress of modern pharmacological research, this article summarizes the clinical application of Jingfang and its corresponding pharmacodynamic mechanism, explores the strange use of Jingfang, and provides a better clinical application of Jingfang and expands the scope of treatment Use for reference.

Sanwu Beiji Wan, just published "Jinkui requires a little more than one treatment method 23", which is composed of Croton (remove skin and heart, boil, external

<sup>&</sup>lt;sup>2</sup>College of Traditional Chinese Medicine, Shandong University of Traditional Chinese Medicine, Jinan 250355, Shandong, China

research such as fat), dried ginger and rhubarb, each of which has the effect of attacking cold accumulation. According to the original prescription, its usage is "refining is needed for medicine application. First, rhubarb and dried ginger are used as the end, and then Croton is studied. One thousand pestles are treated together. It's used as powder, honey and pill are also good. Don't let it rest if stored in a dense container. If you suffer from evils, disobedience, fullness of your heart and abdomen, resulting in pain like an awl stab. If you are angry and close your mouth, or if you park your body and die, you are allowed to take three or four pills with warm water or alcohol. If you can't, hold your head up and swallow the irrigation order. It will be better later. If there is no difference, you will spit out if you ring in your stomach with three pills. If your mouth is closed, you will break the teeth and water it. "

# 2. Digestive Diseases

#### 2.1 Critical Gastrointestinal Failure

Gastrointestinal failure in critical illness refers to those with abdominal distention, abdominal pain, disappearance of bowel sounds, no defecation and exhaust, or with gastrointestinal function symptoms such as zero gastrointestinal motility, stress ulcer, and ineffective methods such as gastrointestinal motility promoting drugs, enema, gastrointestinal decompression and Dachengqi decoction. Zhao Ping [1] et al. Used two Croton peeled, rhubarb 3G and ginger 3G to prepare three kinds of preparation acute pills for the treatment of the disease, added 50ml of water and nasal feeding, and observed the symptoms of the patients (bowel sounds, abdominal distention, defecation, exhaust, etc.). After defecation, 40 ml Shenfu injection was infused intravenously once a day until the bowel sounds recovered and enteral nutrition could be carried out smoothly. 24 cases were treated, 6 cases were ineffective, the cure and remission rate was 75%. At the same time, the results showed that the content of plasma motilin (MTL) decreased significantly, the content of somatostatin (SS) increased significantly (P< 0.01), which affected gastrointestinal movement, and gastrointestinal failure occurred in severe cases. After treatment, the content of plasma MTL increased and the content of SS decreased, so that Gastrointestinal function was restored and the effect was significant. It was found that crotonoleic acid contained in Croton can strongly stimulate intestinal mucosa, make intestinal peristalsis and blood vessels dilate and congest. Anthraquinone in Rhubarb can promote large intestine peristalsis and blood circulation. Zingiberene and gingerol contained in ginger can excite the vascular center.

# 2.2 Chronic Dyspepsia Enteritis

Chronic enteritis is a chronic inflammation of intestinal mucosa with various clinical manifestations. When the clinical manifestations of dyspepsia, it is considered as chronic dyspepsia enteritis. Traditional Chinese medicine believes that the disease is mainly caused by improper diet, excessive food, cold and emotional

disorders. Chen Baohong [2] et al. Soaked 50g Rhubarb in vinegar for 3 days, dried it in the sun, then soaked it in children's stool for 3 days, dried it in the sun, and 50g each with croton (peeled, raw) and ginger to form a fine powder, which is made into three kinds of emergency pills with a weight of about 0.02g each. Take one capsule three times a day and get good effect. After taking the medicine, the patient said that the stomach had a kind of comfort like massage, and the initial effect could be seen after taking the medicine for 3 days. After taking the medicine, the whole course could be 15-40 days until the patient recovered. Do not rush.

## 2.3 Acute Flatulence

Because of the obstruction of gastrointestinal tract caused by various reasons, the gas in gastrointestinal tract can not be discharged with gastrointestinal peristalsis and accumulated in gastrointestinal tract is regarded as flatulence. Chen Baohong [2] et al. Were given 3-5 San Wu Bei Ji Wan when intestinal obstruction was eliminated. If the patient vomited or discharged, he would recover. The composition and preparation of the drug are the same as those of the above treatment of chronic dyspepsia enteritis.

#### 2.4 Acute Abdomen

Acute abdomen refers to the general term of abdominal diseases that need urgent diagnosis and treatment with acute abdominal pain as the prominent manifestation. Liu Lian [3] et al. Took 30g of Croton (peeled), dried ginger and rhubarb respectively, and studied them into fine powder, and added appropriate amount of honey and 90 pills to treatabdominal pain caused by cold, solid and cold accumulation, and achieved satisfactory effect. The dosage depends on the strength of the patient's constitution and the severity of colic. It is better for young and middle-aged patients. If they do not get better, they will continue to take it. However, they should not invest a lot at a time to avoid delaying the illness or causing serious side effects. In addition, it should be noted that the indication of San Wu Bei Ji Wan is cold abdominal pain, which can only be used with the help of modern medical physical and chemical examination to eliminate other abdominal diseases. Such as in the exclusion of gastric perforation, gastroenteritis, pancreatitis, appendicitis, cholecystitis, gallstones, kidney stones and other circumstances, the intramuscular injection of atropine, progesterone can not be relieved, you can send warm water to take this honey pill.

## 2.5 Constipation

Constipation is a common and complex clinical symptom, which mainly refers to the reduction of defecation frequency, fecal quantity, fecal dry knot, defecation and so on. According to traditional Chinese medicine, cold evil accumulates and blocks the stomach and intestines, so that the ascending and descending mechanism is blocked. Therefore, constipation or two stools are blocked. Zhu Wenhao [4] thinks that when the powder is grinded to a very fine level, it can be absorbed well after taking, so as to reduce the dosage and toxic and side effects. Therefore, take 30g of Croton (peeled and cored), stir fry it until golden yellow, remove it, grind it into paste after cold, pressurize and absorb oil in multi-layer filter paper, change filter paper overnight until oil is absorbed. Dry ginger and rhubarb 30g each in an oven  $(60 \, ^{\circ}\text{C} \sim 80 \, ^{\circ}\text{C})$ , and then put them together with croton cream in a 6j-1 sealed test sample pulverizer, smash them to 200 mesh powder for standby. The patient's face was pale, with severe epigastralgia, bent over, sweating like a bead, defecating for 5 days, thin and fat tongue, greasy moss root, and late pulse. Before going to bed every night, warm boiled water is delivered once, 0.25g-0.5g each time. According to the degree of cold pathogen, stagnation and physical strength, it can be taken for 1 or 2 times, and the middle disease can be stopped. Some cases should be taken continuously, with significant effect. In addition, it should be noted that the side effects of this prescription are dizziness, nausea, abdominal pain, and gastrointestinal strife. Generally, diarrhea can be relieved after taking cold porridge for more than three times.

#### 2.6 Lead Colic

Lead colic is one of the main clinical manifestations of acute and chronic lead poisoning. Traditional Chinese medicine believes that lead is cold and toxic, and can cut down vital energy, so that cold food stagnation in gastrointestinal Yin. Guo Lairong [5] incised the patient's groaning and chattering, pressed his hands and knees on his abdomen, rolled over the bed, felt his abdomen soft, the tongue dark, the center of the tongue coating dirty, the pulse string tight. Take 150mg Croton kernel (without oil, broken into small granules, swallowed once), 10g ginger, 10g rhubarb, 20g Longmu (fried first), 1 dose. Fry the sauce. About 2 hours after the drug, the patient's abdominal distention and pain suddenly disappeared, without further two juices, the abdominal pain did not recur, and the effect was significant. Among them, jiashenglongmu can not only calm the mind, but also conspire with western medicine to treat lead colic with calcium.

# 2.7 Intestinal Obstruction

Intestinal obstruction is one of the common surgical acute abdomen. Obstruction of intestinal contents caused by any reason is called intestinal obstruction. Traditional Chinese medicine believes that the main cause of intestinal obstruction is intestinal distention and the loss of six Fu organs. Zhao Huanan [6] treated the ileus with cold accumulation and internal arrest, and the symptoms were abdominal cold pain, hand and foot temperature deficiency, white and greasy tongue coating, pulse sinking and withdrawing or string tightening. He modified the original Shumi pill as a capsule to facilitate taking and mastering the dosage. First, grind rhubarb and dried ginger into fine powder, then add Croton (Degrease) to grind evenly, pack into capsules, each containing 0.3g crude drug, adults take 2-3 capsules each time, if the stool is blocked after taking, give it again 2-3 hours later, and get good results

ISSN 2618-1584 Vol. 2, Issue 3: 1-9, DOI: 10.25236/FMSR.2020.020301

quickly.

Zhang Daolian [7] treated the ileus of middle and lower Jiao in cold and wet food block. The symptoms were vomiting frequently, defecation was blocked, sudden abdominal pain was like a prick, mouth was silent and violent. Take 30g rhubarb and 30g dried ginger and grind them respectively. 30g (peeled) Croton was wrapped in 7 layers of cotton paper, put Croton kernel in the middle of 2 new bricks (burned to red color), and pressed for 15-20 minutes under the pressure of 30-50kg, so as to make the oil run out. At the end of research, the three flavors were left Mix and grind the fine powder until there is no chirp. Each hollow rubber pill is loaded with 0.25g, and 2-3 pills are given. Warm water is taken. After diarrhea, abdominal distention and pain disappear. The curative effect is satisfactory.

Fu Kaizhi et al. [8] treat mechanical ileus, and we can see abdominal pain, abdominal distention, vomiting, defecation without sagittal Qi, or abdominal distention, or the emergence of intestinal mass. According to the pain, the pulse is multi stringed, the number of strings or the flood. Take 250g rhubarb, 160g dried ginger and 90g Croton (peeled, ground and degreased), and make the dosage ratio 3:2:1. Then mash the rhubarb first, sift the dried ginger as the end, grind the Croton into it, then take 500g honey, refine it until the water drips into beads, and take honey as pills, each pill weighs 1g. Swallow with warm water or wine, take 1 pill for those under 14 years old and 1-2 pills for those over 15 years old, once every 4 hours. After taking the medicine, the bowel sounds, then defecates, and the symptoms are relieved. In addition, it is reported that San Wu Bei Ji Wan can treat the early stage of acute simple ileus caused by volvulus, and the curative effect is significant [9]. According to the study on the isolated small intestine of rabbits by the acute abdomen research group of Zunyi Medical College [10], sanwubeiji pill can obviously strengthen the contraction of the intestine, in which Croton can excite the intestine, rhubarb and ginger can reduce the tension of the intestine.

# 2.8 Acute Primary Peritonitis

Acute primary peritonitis refers to the acute inflammatory changes of peritoneum caused by infection of abdominal cavity by pathogenic bacteria through blood circulation, lymphatic pathway or female reproductive system. Xu Jimin [11] et al. Received 1 case. The patient's face was blue and short of breath, crouched in a crouching position, with clear language, thirsty for hot drink, bad urination and defecation, abdominal distention and pain, gray and moist tongue coating, and deep pulse. Syndrome differentiation belongs to cold and solid internal knot, qi stagnation impassability, geyang in the outside, treatment should attack the cold accumulation, Tong Yang pain. In the treatment of San Wu Bei Ji Wan, first mash rhubarb and ginger as the fine end, then grind Croton in the internal and extremely well. After 2 hours, the abdominal distension and pain decreased greatly, and the body temperature decreased to normal. After the effect, 1.5g was taken in combination with antibiotics, and good effect was achieved.

# 2.9 Dyspepsia

Dyspepsia refers to a disease that can't digest and drink food normally due to overeating, overeating, or eating persimmon on an empty stomach, so that it remains in the gastrointestinal tract. Traditional Chinese medicine believes that the disease is caused by the abnormal rise and fall of the spleen and stomach. Fang shuzai: San Wu Bei Ji Wan is mainly used to treat cold accumulation, but it is often ignored to treat the disease of hard dryness. Zou Weide [12] diagnosed that the patient was distended and uncomfortable in the abdomen, gradually distended and painful, did not think about food, and had yellow and greasy tongue coating. And has been used in general Xiaodao agents such as Baohe pills, Jishi Daozhi pills, Chengqi Decoction, etc., all failed to take effect. Therefore, it was treated with San Wu Bei Ji Wan, 1.5g each time, and swallowed twice. After 2 times of diarrhea, abdominal pain stopped and recuperated for several days.

Qi Zhengke [13] incised the patient's epigastric fullness, acute pain, refusal to press, nausea, tasteless food, fatigue. It can be divided into cold accumulation and stagnation of food, blocking the intestine and stomach. Take 3 G warm boiled water of rhubarb, Croton (at the end of research) and ginger. After a few vomitus and diarrhea, the abdominal distention was suddenly reduced, and the decoction was given to cool Soup for half a bowl. The diarrhea and vomiting were stopped, and then the spleen and stomach were recuperated with the warming and strengthening agent. The curative effect was satisfactory.

#### 3. Skin Diseases

Acute purulent infection of the face and hands and feet refers to the acute purulent infection caused by pathogenic bacteria invading the micro wounds of the face, hands and feet, growing and reproducing in them or producing toxins. Traditional Chinese medicine calls it boils, which is thought to evaporate the skin by the heat of the poison, resulting in stagnation of Qi and blood, aggregation of fire and poison, and heat surpassing flesh decay. Chen Baohong [2] et al. Treated with San Wu Bei Ji Wan. The composition and preparation method are shown above. Oral, 3 times a day. 3 pills were given on the first day, 6 pills on the next day, 9 pills on the third day, and then 3 pills on the fourth day. This was repeated until the disease recovered. After the drug was stopped, it was washed with peach leaves and boiled with water, without recurrence.

# 4. Respiratory Diseases

Chronic bronchitis is a chronic nonspecific inflammation of the trachea, bronchial mucosa and surrounding tissues. Traditional Chinese medicine believes that chronic bronchitis (intestinal cough) mostly belongs to Qi deficiency, Yang deficiency, and visceral excess. Liu Xiurong et al. [14] found that the patient was fat, with blue face, purple lips, forced breathing, slight bulge of abdomen, white, thick and yellow tongue coating, and solid and powerful pulse. Dialectics is that phlegm is

restrained, Qi mechanism is not smooth, and Chinese Yang medicine is misused. The more tonic it is, the more stagnation it will be, the Lung Qi will not fall, the temper will not rise, so that the intestine coughs incessantly. With the general method of Tongyin, sanwubeiji pill was selected for treatment, and dried ginger was removed. Only 9g rhubarb and 1g Croton were taken, and the effect was remarkable. After taking 1 dose, the initial effect can be seen. After taking 2 doses, Qi is smooth, souping and diarrhea stop.

# 5. Gynecopathy

Dysmenorrhea is one of the most common gynecological symptoms. It refers to the pain and distention of the lower abdomen before and after menstruation or during menstruation, accompanied by lumbago or other discomfort. In traditional Chinese medicine, dysmenorrhea can be divided into positive syndrome (qi stagnation and blood stasis, damp heat stasis and cold coagulation) and deficiency syndrome (deficiency of Qi and blood, deficiency of liver and kidney). For dysmenorrhea of cold pathogenic stagnation type, Chen Baohong [2] et al. Treated with three things preparation acute pill. The composition and preparation method are shown above. It is safe and effective in clinical use. When dysmenorrhea occurs, take 2-3 pill of San Wu Bei Ji pill three times a day until the abdominal pain disappears.

# 6. Critical Illness

Death refers to the critical syndrome of sudden loss of consciousness due to unknown reasons within 6 hours, which is mainly manifested as the disappearance of pulse beat such as Cunkou, Renying and Fuyang, pause of breath, cyanosis of the whole body, mydriasis, cold limbs, etc. According to traditional Chinese medicine, the dead, suddenly, lose their vitality. Zhou Chaojin [15] used San Wu Bei Ji wan to treat the dead patients. He took 3-4 pills with warm water or wine, i.e. vomited excrement.

#### 7. Conclusion

The clinical application and experimental study of San Wu Bei Ji Wan showed that the prescription had the effect of promoting large intestine peristalsis and blood circulation. It is commonly used in the treatment of digestive system diseases, such as intestinal obstruction, critical gastrointestinal failure, chronic dyspepsia enteritis, acute gastrointestinal flatulence, lead colic, etc. In addition, it also has a good effect on cold coagulation type dysmenorrhea, Fu Shi type chronic bronchitis and acute suppurative infection of the face, hands and feet. It is found that San Wu Bei Ji Wan has been rarely used in clinic in recent years. On the one hand, the side effects of this prescription are large, the dosage is not easy to master, and the production of this medicine is greatly reduced, so the clinical use is less [4]; on the other hand, Croton has a strong and toxic effect, so patients are afraid, and doctors use less [2].

Zang Yuncai et al. [16] thought that croton oil was the main active component in Croton, and the adverse reaction was hemolysis of Croton toxin. By processing, it can not only reduce the toxic effect of plant protein in Croton, but also avoid the loss of effective component Croton cream. Therefore, as long as the indications, dosage and first-aid methods are correctly mastered, it can be used cautiously.

In addition, in the process of sorting out the literature, it was found that there were few pharmacological studies on sanwubeiji pill, and there were few relevant materials to prove its specific mechanism of action. Wang Deming et al. [17] believed that the pharmacological research of traditional Chinese medicine should be conducted under the guidance of traditional Chinese medicine theory, so it is the key to successfully establish an animal model reflecting syndrome differentiation and treatment. However, because the concept of "syndrome" in traditional Chinese medicine is summarized from a large number of clinical phenomena and treatment experience, the exact pathological morphology and pathophysiological changes are not well understood, and the corresponding animal model should be successfully established In certain difficulties. This may be one of the reasons for the lack of pharmacological research on this formula. In addition, the decrease of clinical application may also affect people's attention to its pharmacological research.

However, there are many good effects of this prescription, but it is a pity to neglect it, so that this article can provide reference for clinical application of this prescription, and at the same time, it suggests that our next research can turn to the pharmacological research of this prescription, and provide more experimental basis for clinical application.

# Acknowledgment

Shandong University of Traditional Chinese Medicine 2019 Provincial University Student Innovation Training Plan (S201910441028)

#### References

- [1] Zhao Ping, Zhang Qiucai, Guo Lianshu, et al. 24 cases of critical gastrointestinal failure treated with San Wu Bei Ji Wan [J]. Journal of traditional Chinese medicine, 2010,51 (5): 452
- [2] Chen Baohong, Chen Yinghua, Chen Yingxing, et al. Experience of clinical application of San Wu Bei Ji Wan [J]. Chinese folk therapy, 1998,6 (3): 36-37
- [3] Liu Lian. Application of San Wu Bei Ji Wan in acute abdomen [J]. Inner Mongolia traditional Chinese medicine, 1992,2:20
- [4] Zhu Wenhao. Clinical application of San Wu Bei Ji Wan [J]. Journal of Zhejiang University of traditional Chinese medicine, 1986,2:19-21
- [5] Guo Lairong. Zhongjingfang in the treatment of acute abdominal pain [J]. Henan traditional Chinese medicine, 1995,1:11-12
- [6] Zhao Huanan. Experience of applying the following methods in acute abdomen [J]. Jiangsu Journal of traditional Chinese medicine, 1983,5:29-30

# ISSN 2618-1584 Vol. 2, Issue 3: 1-9, DOI: 10.25236/FMSR.2020.020301

- [7] Zhang Daolian. San Wu Bei Ji Wan in the treatment of intestinal obstruction [J]. Journal of traditional Chinese medicine research, 1986,2:31
- [8] Fu Kaizhi, Chen Jicai. 39 cases of intestinal obstruction treated with San Wu Bei Ji Wan [J]. Yunnan Journal of traditional Chinese medicine, 1982,2:27
- [9] Luo Wencheng. A case report on the treatment of intestinal obstruction with San Wu Bei Ji Wan [J]. Journal of traditional Chinese medicine, 1965,9:27
- [10] The effect of traditional Chinese medicine on the movement of small intestine in rabbits in vitro -- a preliminary observation on the effect of San Wu Bei Ji Wan on intestine [J]. Journal of new medicine, 1975,11:41-43
- [11] Xu Jimin, Yang zhongyun. A case report of acute primary peritonitis cured by San Wu Bei Ji Wan [J]. New Chinese medicine, 1992,5:39
- [12] Zou Weide. Experience in the treatment of food Stagnation with "San Wu Bei Ji Wan" [J]. Shanghai Journal of traditional Chinese medicine, 1964,5:28
- [13] Qi ZHENG Ke. Clinical application of San Wu Bei Ji Wan [J]. Correspondence of traditional Chinese medicine, 1996,5:16
- [14] Liu Xiurong, Zhou Wei. Case of enterocough [J]. Sichuan Traditional Chinese medicine, 1990,10:33
- [15] Zhou Chaojin. My opinion on miscellaneous therapy and food taboo in Synopsis of the golden chamber [J]. Chinese medical journal, 1997,4:32-33
- [16] Zang Yuncai, Xie Qiuli, Yang Weichao. Croton and its application [J]. Journal of traditional Chinese medicine, 2018,33 (5): 805-808
- [17] Wang Deming, Li Yikui. Different effects of xiafa representative formula on several pathological models [J]. Chinese Pharmacological Bulletin, 1986 (2): 55-56