

Progress in Ulcerative Colitis with Spleen and Kidney Yang Deficiency Type

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Abstract: *Ulcerative colitis is a chronic, non-specific, recurrent and inflammatory disease mainly involving the colorectal mucosa. In recent years, its incidence has been on the rise worldwide, and it has gradually become a common disease of the digestive system and difficult to treat. Because its pathogenesis is not clear, there is no specific drug in treatment. Compared with the limitations of western medicine treatment, traditional Chinese medicine has the advantages of definite curative effect in treatment, small side effects and low recurrence rate. In the TCM syndrome differentiation, spleen and kidney Yang deficiency is the most common. This paper summarizes the TCM treatment research of spleen and kidney Yang deficiency ulcerative colitis in recent years, which provides new ideas for the clinical research and diagnosis and treatment of this disease.*

Keywords: Ulcerative colitis, Spleen and kidney Yang deficiency, Traditional Chinese medicine research.

1. Introduction

The typical clinical manifestations of ulcerative colitis (ulcerative colitis, UC) are abdominal pain, diarrhea and mucinous pus and bloody stool. The diseased sites are mainly the mucosa and submucosa of the colorectal disease, which is long, prolonged, repeated attacks, and eventually develop into colon cancer and rectal cancer, which is listed as one of the modern refractory diseases by the World Health Organization [1]. The western medicine treatment temporarily cure specific medicine, from the traditional scheme (5-amino salicylic acid, hormones and immune suppression) to the present biological agents, can induce UC relief, but long-term maintenance relief is still not ideal, difficult to achieve the goal of "histological remission", and there are more adverse reactions, easy to form drug dependence [2-3]. Traditional Chinese medicine treatment of ulcerative colitis has unique advantages, including stable curative effect, low cost and not easy to relapse. More importantly, it avoids the adverse reactions of western medicine treatment, and is welcomed by patients. This paper discusses the TCM treatment of spleen-kidney Yang deficiency ulcerative colitis as follows.

2. The Cause of the Disease

Because ulcerative colitis is the name of western medicine, it can not be clearly recorded in the ancient books of traditional Chinese medicine. However, according to the typical clinical manifestations of ulcerative colitis and diarrhea, mucus, pus, abdominal pain and emergency, the disease corresponds to the name of "bowel", "bowel", "benefit", "diarrhea", "intestinal wind", "blood in stool" and other diseases. In the "expert consensus opinion of TCM diagnosis and treatment of Ulcerative colitis" [4] It is suggested that the weakness is the basis of the disease, including external evil, diet and emotion; the disease is in the large intestine, spleen, liver, kidney, lung dysfunction; spleen and stomach weakness, dampness (heat), heat stasis, heat poison, phlegm turbidity, qi stagnation, blood stasis, etc. In the "Jingyue book · dysentery" mentioned that "in the urgent heavy, the disease in the wide intestine bottom, and the disease is not in the wide intestine but in the spleen and kidney" "spleen and kidney weak, but the cold and cold is easy to make dysentery", "Medical must read" said: "... in the

spleen, the shallow, in the kidney of the stomach, kidney is the stomach, open in the two Yin, no long dysentery and kidney is not damaged", it can be seen that spleen and kidney Yang deficiency is the onset of the disease. The spleen Yang is rooted in the kidney Yang, the kidney Yang is the root of the whole body Yang, warm spleen, so that the temper can be healthy, water and grain can be transported and distributed. For a long time, it will damage the kidney Yang; or congenital deficiency or acquired factors hurt the kidney, causing the kidney Yang damage, the spleen soil, resulting in the spleen Yang is depressed, the large intestine slip both cause and effect, resulting in the spleen and kidney Yang deficiency. Therefore, the spleen and kidney-Yang deficiency syndrome is more common in the clinical syndrome differentiation.

3. Classic Prescription Treatment

The pill is a classic prescription for the treatment of spleen and kidney Yang deficiency syndrome, and has achieved good therapeutic effect in clinical practice. Wang Honghao et al [5] Based on metabolomics observation, the bolus may improve colonic inflammation, colonic tissue lesions and intestinal damage in the model rat by regulating retinol metabolic pathway and arachidonic acid metabolic pathway. Four shen pill is contained in "Zheng zhi criterion", which is the classic prescription of wugeng diarrhea caused by the treatment of spleen and kidney Yang deficiency. The study found that four shen pill [6] It is possible to treat spleen and kidney Yang deficiency UC, by regulating inflammatory factors, inhibiting inflammatory response, regulating autophagy, improving intestinal mucosal permeability, repairing intestinal mucosal barrier, regulating cell energy metabolism, fighting oxidative stress, and regulating cellular immune function. Liu Suping et al [7] The finding that four god pills effectively improved the symptoms of spleen and kidney Yang deficiency in UC mice may be related to the intervention of the PI3K / AKT / mTOR signaling pathway and then the modulation of the level of costimulatory molecules on the surface of dendritic cells. The prescription of pain diarrhea comes from "Danxi Heart method", sishen pills and pain diarrhea to simple prescription, refined formula, as the classic prescription to treat diarrhea, and studies have found [8] The main prescription of four shen pill can play a

therapeutic role in inhibiting MAPK inflammation pathway, repairing intestinal mucosal barrier and improving water transportation, so as to repair colon injury and improve symptoms such as blood in stool. And Wang Jingjing et al [9] Through the study of "daily complementary" method of Shenling White shu powder and renal qi pill, it was found that rats with ulcerative colitis with spleen and kidney Yang deficiency might be intervened by regulating amino acid metabolism, oxidative stress response and energy metabolism.

4. Empirical Treatment

"Jingyue Encyclopedia · diarrhea" pointed out: "the kidney is the pass of the stomach, open in the two Yin, so the opening and closing of the stool, are the Lord of the kidney, now the kidney Yang deficiency, the door fire decline... Yin qi peak, that is, the hole is more than also." Spleen and kidney Yang deficiency, dirty deficiency internal injury, abnormal transport, water wet internal stop, or deficiency cold endogenous, cold and dampness; or wet long accumulation and heat, damp and heat fumigation, obstructing the intestines, both cold and dampness fumigation, are the basic pathogenesis of spleen and kidney Yang deficiency. Closely related to the etiology and pathogenesis of spleen and kidney Yang deficiency, many doctors combined with years of clinical experience, using the method of warming the spleen and kidney, solid astringent and antidiarrhea to treat ulcerative colitis, which has achieved good curative effect in clinical practice, and also has obvious curative effect in the study of modern pharmacology.

Such as Professor Li Yi [10] It is believed that the basic pathogenesis of UC is mainly "spleen and kidney Yang deficiency, dampness, heat and blood stasis and blood block", and the treatment method should be "Fuyang promoting blood circulation and detoxification", cubic warming the spleen and kidney, promoting blood circulation and removing blood stasis, and clearing heat and dampness throughout, and creating "Fuyang promoting blood circulation and detoxification". The treatment of UC has good curative effect, with high cure rate and low recurrence rate. Moreover, it was found that Fuyang blood circulation and detoxification prescription significantly improved the symptoms and colon tissue damage in UC model rats, which may be related to the decrease of serum IL-17 level and the increase of serum IL-10 level [11]; And possibly upregulate serum IL-4 expression and reduce the expression of IFN- γ to maintain the TH 1 / TH 2 cell balance and then function in the treatment of ulcerative colitis [12]. At the same time, some studies have found that supplementing the spleen and kidney can regulate IL-6, IL-17, TNF- α and other related inflammatory factors, and improve the clinical symptoms of patients [13]. Xi Lanlan et al [14] The treatment of spleen and kidney Yang deficiency UC created by Professor Song Guangrui can reduce the clinical symptoms of spleen and kidney Yang deficiency UC, and have the effect of regulating inflammatory factors and immune function, and increasing the immunity of the body. It has been found that the solid bowel pill can relieve the symptoms and subjective feelings of patients and improve the objective indicators such as inflammatory factors in the treatment of ulcerative colitis [15]. Chang Weiwei et al [16] Through the detection of clinical symptoms score, TCM

syndrome score, inflammatory bowel disease questionnaire score and IL-6, IL-10 and TNF- α , it was found that the spleen and kidney elimination can improve the clinical symptoms, TCM syndrome, inflammatory factors and IBDQ score of patients with ulcerative colitis. In addition, Wei Qiuyu et al [17] It is found that collapse can regulate the imbalance of immune function in UC rats, which can greatly alleviate the general situation and intestinal inflammation of rats, and promote the recovery of intestinal mucosa. The mechanism of action may be the further regulation of the Th 17 / Treg balance by regulating the secretion of inflammatory factors. Ma Haiyan [18] Through clinical effect observation, it is found that the soup can significantly improve the clinical symptoms of spleen and kidney Yang deficiency ulcerative colitis and improve the quality of life of patients. View less power, etc [19] The study found that the adjuvant treatment of UC (spleen and kidney Yang deficiency) patients with rupture formula 1 can effectively improve the clinical treatment effect, improve TCM symptoms, reduce inflammation, improve hemorheology, and have high safety.

5. Treatment by External Treatment

Acupoint embedding can improve the blood circulation of the body, stimulate the meridians and blood, adjust the viscera, and has the advantages of urgent treatment, and slow clinical advantage, which is easy to be accepted by patients. Xie Chaoqun et al [20] It was found that acupoint embedding (acupoint: bilateral "Zusanli", "Tianshu", "Renyu", "Xianyu", "Dayu", "Colyu", and "Fanyu") could reduce the expression of Keap 1 / Nrf 2 / HO-1 signaling pathway, promote Nrf 2 into the nucleus, improve SOD, CAT, GSH-Px activity, up-regulate HO-1 expression, reduce MDA content, and enhance anti-oxidative stress.

Acupoint application is a common clinical external treatment method, which has the characteristics of remarkable curative effect, few adverse reactions and convenient use. Chen Kai [21] USES professor Zhu Ying according to many years of clinical experience of collapse cream (gun seed, hu, clove, mustard, red peony, thin, ginger, etc.), on the basis of the viscera meridians theory choose acupoints, using drug external stimulation acupoints, further through the meridians will efficacy to the corresponding parts, thus warm spleen kidney, regulate qi and blood. The results found that reducing DAI, score and CMDI score, repair of colon tissue damage, the mechanism is related to the reduction of inflammatory factor secretion, inhibition of IL-6 / miR-155 axis related factors IL-6, p-STAT 3, miR-155 expression, and regulation of Th 17 / Treg balance.

The acupoint massage mainly selects the abdominal Qihai, Guan Yuan, Zhongwan and Xiawan four points as the main points, and conducts the manual acupoint massage according to the operation standards of abdominal acupoint massage. Umbilical moxibustion with homemade umbilical moxibustion Chinese medicine powder (formula including: psorolien, dogwood, nutmeg, schisandra, ginger, jujube, etc., etc.) to fill the navel, and then placed on the Chinese medicine powder lit. Zhang Yuanyuan [22] Through Bristol fecal trait score, traditional Chinese medicine symptom score and colonoscopy mucosa Baron score, clinical observation of spleen and kidney Yang deficiency UC patients, the results

show that it can promote the remission of inflammatory reaction of intestinal mucosa tissue, and then conducive to the repair of intestinal damage and effectively alleviate UC symptoms.

The treatment of this disease has the advantages of small stimulation, good curative effect, convenient operation and few adverse effects [23]. In addition, the drug is absorbed through the middle and lower rectal venous plexus, avoiding the destruction of gastric acid and digestive enzymes, and preventing or reducing the first-pass effect of the liver. And the rectal mucosa and intestinal wall have a good absorption function, high concentration of drugs directly to the lesion, the active ingredients of absorbed drugs faster than internal medicine, can directly eliminate, analgesic, bleeding, healing ulcer, direct effect, long action time [24]. Studies have found that based on aconite medium soup, it can improve intestinal inflammation, reduce mucosal inflammation damage, and upregulate TJ protein expression, promote mucosal healing, and then treat spleen and kidney Yang deficiency ulcerative colitis [25].

6. Combination Therapy

6.1 Combination Treatment of Chinese and Western Medicine

The most common clinical treatment is combined Chinese and western medicine, and many clinical observations have also proved that its efficacy is better than that of single Chinese medicine or western medicine treatment. Mesalazine can inhibit the synthesis of leukotriene and prostaglandin, inhibit the inflammatory reaction of intestinal mucosa, and is the mainstream drug in the clinical treatment of ulcerative colitis [26] But clinical research [27] It was found that this drug alone is not effective for UC, and long-term use may also lead to liver injury. Many studies have found that mesalazine combined with traditional Chinese medicine for ulcerative colitis is better than mesalazine alone, such as for Wenhua Zhou [28] The study found that stilbene soup with beauty salad qin coated can effectively alleviate clinical symptoms, improve intestinal mucosa and histopathological condition, reduce serum PCT, DAO level, promote restore intestinal mucosal barrier function, good safety, and stilbene soup group in the waist and knee acid, cold limb cold improvement than beauty salad qin coated group. Studies have also found that colon tonic deficiency pill combined mesalazine enteric coated tablet chronic recurrence UC patients with spleen kidney Yang deficiency syndrome, may by inhibiting inflammation, induce intestinal mucosal immune tolerance, to improve the clinical response rate, clinical remission rate, CRP success rate, FC success rate and endoscopic mucosal healing rate, to protect the intestinal mucosal barrier function, and reduce the early recurrence rate, reduce disease activity, promote histological remission, improve the quality of life [29]. And Liu Huan [30] Think spleen kidney Yang deficiency type UC should be in culture, since the proposed soup, through the observation soup combined beauty salad qin enteric tablet treatment of mild and moderate UC (spleen kidney Yang deficiency type) clinical effect, the results found that its significantly improve clinical symptoms, reduce intestinal inflammation, reduce intestinal mucosal pathology grading, promote mucosal healing, is better than simple

western medicine oral. Studies have also found that the combination of Angel soup and Mesqin granules with press and injection can improve the clinical effect, improve the inflammation level of the body, regulate the brain-gut axis, and improve the quality of life of patients [31]. Xie Tianyang [32] According to the TCM syndrome score, Baron colonoscopy mucosal histological score and inflammatory level index, it was found that the combination with mesalazine plug could effectively improve clinical symptoms, reduce IL-6 and TNF- α , increase the level of IL-10 inflammatory index, and slow down intestinal inflammatory response. At the same time Yang Dianbin [33] The study found that the rupture soup combined with mesalazine enteric-coated tablets in the spleen and kidney Yang deficiency active phase of UC can significantly improve the various symptoms of UC and promote the effective expression of HGF and c-MET. Ke Meifang [34] Through clinical observation, it was found that warm kidney and spleen soup combined with montmorillonite powder had a significant effect on treating ICU spleen and kidney Yang deficiency diarrhea, which could promote the recovery of gastrointestinal function and relieve the inflammatory reaction of the body, with no obvious adverse reactions.

6.2 Combination Treatment of Traditional Chinese Medicine and External Treatment

Moxibustion has the function of warming meridians and dredging collaterals, promoting qi and promoting blood circulation. Through clinical observation, it was found that traditional Chinese medicine and moxibustion were used to treat spleen and kidney Yang deficiency UC, and achieved good results. Li Yiming [35] The combination of moxibustion can effectively treat the spleen and kidney Yang deficiency type UC, improve the clinical symptoms, reduce the inflammation reaction, and reduce the gland volume. Wang Chen [36] Through clinical studies, it was found that flavored continuous soup combined with umbilical moxibustion treated ulcerative colitis with spleen and kidney Yang deficiency type, effectively alleviating clinical symptoms and reducing the recurrence rate. Compared with traditional moxibustion, the moxibustion of Du moxibustion has a larger range, more firepower and longer time, and its warm ability is more lasting and deep, which can better regulate the viscera and the movement of the whole body qi and blood. Through clinical research, some researchers found that the self-proposed prescription of warm Yang collapse combined with moxibustion treatment of spleen and kidney Yang deficiency ulcerative colitis can effectively improve the symptoms of traditional Chinese medicine and intestinal mucosal lesions, and the safety of the treatment process is good [37].

Warm acupuncture is acupuncture and moxibustion, which can penetrate the efficacy of mugwort leaves into the skin, strengthen the work of acupuncture, and achieve the effect of warming the meridians, promoting blood circulation and removing blood stasis. Zhang Yanjun [38] According to huang yuan royal "soil pivot four elephant, a flow" academic thought, combined with the overall idea of acupuncture, research found that the spleen and stomach lift temperature combined deficiency can obviously regulate ulcerative colitis spleen kidney Yang deficiency syndrome patients Th 17, Treg

levels, make the expression of Foxp3mRNA tend to normal, regulate the immune function, improve the colon lesions and clinical symptoms.

Chinese medicine retains enema through intestinal administration, so that the drug can be absorbed through intestinal absorption and effectively act on local lesions, which can effectively replace the first pass elimination effect of hepatic and intestinal circulation and the damage to gastric mucosa caused by oral drugs. Therefore, TCM enema therapy is one of the important methods to treat UC, and has achieved good clinical effect [39]. It is suitable for rectal type and left half colon type ulcerative colitis [40]. Li Mengchao et al [41] The study found that preserved enema and warm acupuncture had good effects in improving TCM symptoms of spleen and kidney Yang deficiency, patient quality of life, Mayo score, ESR and CRP content of UC patients, especially in improving diarrhea and fatigue.

7. Summary

Due to the pathogenesis of ulcerative colitis is not clear, no can cure specific drugs, the western medicine treatment can only delay the course of the disease, reduce the symptoms of patients, but because of the expensive western medicine is expensive, adverse reactions, and easy to relapse, seriously affected the patient's quality of life, become a problem in the world. Traditional Chinese medicine has good advantages and can choose the most effective method according to different clinical syndrome differentiation. Many studies have been safe and effective in the treatment of ulcerative colitis, which can reduce its adverse reactions and recurrence rate.

In conclusion, for the etiology of ulcerative colitis, doctors have views, this paper mainly summarizes the spleen kidney Yang deficiency ulcerative colitis treatment, stick to the etiology, the prescription, the experience, Chinese medicine combined western medicine or Chinese medicine, both clinical observation or experimental research, have proved that traditional Chinese medicine treatment better strengthen healing ulcer, and relieve symptoms, block to onset, reduce the possibility of inflammatory changes for cancer, enhance life, and so on [42]. Therefore, in the future, we should increase the research on the etiology and pathogenesis of ulcerative colitis in traditional Chinese medicine, and use the method of combining traditional Chinese medicine and modern medicine to better play the advantages of traditional Chinese medicine in the treatment of ulcerative colitis, so as to make a great breakthrough in the treatment of ulcerative colitis [43].

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