

# *Research Progress in the Treatment of Mild and Moderate Ulcerative Colitis with Modified Classical Prescriptions*

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**Abstract:** As a digestive tract disease, ulcerative colitis is recurrent and refractory, which often makes western medicine helpless, while traditional Chinese medicine treatment shows better clinical efficacy, lower toxic and side effects, and the recurrence rate is very low. Classical prescriptions generally refer to the prescriptions in Treatise on Febrile Diseases and synopsis of the Golden Chamber written by Zhang Zhongjing, a physician of the Eastern Han Dynasty, among which the prescriptions for the diagnosis and treatment of "diarrhea", "Xiali" and "blood in stool" are inexorable. This paper discusses the clinical application of classical prescriptions one by one, in order to expand the scope of application of classical prescriptions, show the advantages and characteristics of classical prescriptions in the treatment of UC, and provide new ideas for the treatment of mild and moderate UC in Chinese and Western medicine.

## 1. Introduction

Most ulcerative colitis (UC) lesions are found in the sigmoid colon and rectum. It is an inflammatory bowel disease with chronic and nonspecific characteristics. Western medicine treatment often has great toxic and side effects. If it is used for a long time, it may damage health, and the curative effect is poor and the treatment cost is large; Different from western medicine, the special advantage of traditional Chinese medicine treatment lies in its good clinical efficacy, less toxic and side effects, and the recurrence rate is lower than that of Western medicine treatment. Zhongjing has a distinctive and broad thinking. When it is used in clinical UC patients, it has received a good response from patients. Compared with western medicine, it has less adverse reactions, which is more popular.

## 2. Syndrome differentiation and treatment

### 2.1. Large intestine damp heat syndrome

#### 2.1.1. Pulsatilla soup

"Treatise on Febrile Diseases" article 370: Hot dysentery, the worst, Pulsatilla soup. "Collection of typhoid fever to the Soviet Union" said: the four drugs are bitter cold, dehumidification and heat clearing products. Hu Jingyi et al. <sup>[1]</sup> concluded that Pulsatilla decoction may effectively treat UC by regulating intestinal flora and improving SCFAs metabolism. Liu Linghua <sup>[2]</sup> compared the two treatment methods of Pulsatilla Decoction plus and minus mesalazine combined with mesalazine single drug through clinical observation. The combined treatment scheme can better alleviate the symptoms of patients with damp heat UC, and has a certain reference value in clinical practice.

#### 2.1.2. Gegen Qinlian Decoction

Gegen Qinlian decoction, derived from treatise on Febrile Diseases <sup>[3]</sup>, can clear intestines and heat, stop diarrhea and promote diuresis, and relieve exterior pathogenic factors. In modern clinical application, the use of this prescription in the treatment of UC should not be confined to its superficial syndrome, and it is also applicable to those who benefit without superficial syndrome. Gegen Qinlian decoction can clear away dampness and dissipate heat, regulate qi and blood, and unblock stagnation and descend. It has been widely used in the treatment of various diarrhea, including ulcerative colitis, and has achieved good results <sup>[4]</sup> Xu Aijun <sup>[5]</sup> used different methods to treat UC through clinical grouping. The curative effect of Gegen Qinlian decoction combined with Western Medicine (95.8%) was significantly higher than that of sulfasalazine alone (83.3%). He Jiabei et al. <sup>[6]</sup> used two different treatment schemes to treat UC, one is Gegen Qinlian decoction, and the other is Osalazine. Results Gegen Qinlian decoction was superior to Osalazine in the treatment of UC in terms of effective rate and recurrence rate.

### 2.2. Sanxiexin Decoction

At the beginning of UC, damp heat accumulates in the intestines, but it is easy to attack and lingering, which is difficult to heal. After a long time, it will hurt the spleen and kidney, and the Yang Qi of the spleen and kidney gradually loses, resulting in the coexistence of heat evil and yang deficiency. Therefore, clinically, it is considered that UC is mostly empirical from the beginning, and will become deficiency syndrome or deficiency excess mixed syndrome after a long time of progress <sup>[7]</sup>. Some scholars have made statistics on the common TCM syndrome types of UC and believe that mixed cold and heat syndrome is the top 5 syndrome types <sup>[8]</sup>. Banxia Xiexin Decoction can be used clinically to treat discomfort under the heart, vomiting, gastrointestinal disharmony, abdominal distension, abdominal fullness, diarrhea, and yellow and greasy tongue coating <sup>[9]</sup>. Taking elephant comparison, there are many common digestive diseases in western medicine, such as acute and chronic gastroenteritis, irritable bowel syndrome, colitis, which can also be treated with this prescription. As long as the symptoms have the above fullness, vomiting or diarrhea, this prescription can be used to take effect <sup>[10]</sup>.

### 2.3. Spleen deficiency dampness accumulation syndrome

Decoction of Astragalus for Tonifying Middle—jiao.

UC belongs to "enteromania" and "dysentery" in traditional Chinese medicine. It is generally believed that its direct location is in the large intestine, and the root cause is the spleen. Spleen

deficiency lasts for a long time, dampness evil suppresses the spleen, water and grain transportation is unable to stagnation in the intestines, the small intestine is not clear and turbid, the large intestine conduction is derelict, water and humidity are mixed with dross and go to the large intestine for diarrhea <sup>[11-12]</sup>. Spleen deficiency and dampness accumulation are the key to its pathogenesis. Spleen deficiency and dampness are cause and effect each other, and the vicious cycle makes the condition lingering and repeated. "Diarrhea is caused by soil dampness, and dampness is caused by spleen deficiency". Therefore, the treatment of this disease should focus on strengthening the spleen and removing dampness <sup>[13]</sup>. Huangqi jianzhong decoction was created by Zhang Zhongjing. It is composed of Xiaojianzhong Decoction and Huangqi. It is often used to treat epigastric pain caused by spleen stomach deficiency cold. Modern pharmacological studies have proved that huangqi jianzhong decoction has many pharmacological effects, such as spasmolysis, analgesia, hemostasis, improving microcirculation, promoting mucosal repair, regulating immune function and so on <sup>[14-17]</sup>.

#### 2.4. Spleen kidney yang deficiency syndrome

Lizhong Decoction.

Lizhong decoction, the original prescription is Lizhong pill, and later generations often use decoction. Diarrhea and dysentery for a long time, spleen and kidney have been deficient, bitter cold hurts Yang, and the middle Yang is insufficient, so the dampness cannot be warmed, and deficiency is easy to be susceptible to evil, so cold and dampness are generated internally, and deficiency, dampness and cold are intertwined with each other. It is originally spleen and kidney yang deficiency, marked as cold coagulation and phlegm resistance <sup>[18-20]</sup>. Ye Xiangyan said: "the dampness of Taiyin soil gets Yang before transportation", and the spleen gets Yang before transportation, which is treated by Lizhong decoction. Warming yang and dispersing cold, tonifying qi and strengthening the spleen <sup>[21-22]</sup>, then diarrhea and abdominal pain can be cured. Relevant experiments show that Fuzi Lizhong decoction can regulate control factors, alleviate inflammatory effects, and adjust immune ability while keeping intestinal mucosa intact, so as to achieve the goal of treating UC <sup>[23-24]</sup>. After meta-analysis, liujiali et al. <sup>[25]</sup> concluded that the addition and subtraction of Fuzi Lizhong decoction had significant advantages over western medicine in terms of total effective rate and controlling the incidence of adverse reactions.

### 3. Summary

Classical prescriptions generally refer to the prescriptions in Treatise on Febrile Diseases and synopsis of the Golden Chamber written by Zhang Zhongjing, a physician of the Eastern Han Dynasty, among which the prescriptions for the diagnosis and treatment of "diarrhea", "Xiali" and "blood in stool" are inexorable. Later generations of physicians inherited the classic prescriptions on the basis of their predecessors, and used them in clinical practice, with remarkable curative effect, reflecting the subtlety of the application of the classic prescriptions. However, there are still the following deficiencies: ① in addition to the commonly used classic prescriptions for the treatment of UC described in the text, there are many classic prescriptions that have not been supported by clinical research data, but as long as we grasp the key points of syndrome differentiation, they can also be used to treat UC. At present, there are few studies on this, such as Huangtu decoction, Huangqi decoction, etc., which have good repercussions in clinical practice; ② Most of the prescriptions discussed in this paper come from clinical observation, there are few animal experimental models, and there is a lack of unified diagnostic criteria, so they are subjective, and often lack the support of enteroscopy, laboratory indicators and so on; ③ There are still deficiencies in the research on the mechanism of classical prescriptions in the treatment of UC, which often

stays on the research of effectiveness, lacks scientific and effective support, and is not credible and persuasive.

## References

- [1] Hu Jingyi, Zhu Lei, Lian Ziyu et al. Effect of Pulsatilla Decoction on intestinal flora and short chain fatty acids in ulcerative colitis model mice [J]. *Journal of Nanjing University of traditional Chinese medicine*, 2021, 37 (06): 817-822 DOI: 10.14148/j.issn.1672-0482.2021.0817.
- [2] Liu Linghua. Clinical effect of Pulsatilla Decoction plus mesalazine in the treatment of damp heat ulcerative colitis [J]. *Chinese Journal of modern pharmaceutical applications*, 2021, 15 (18): 203-205 DOI: 10.14164/j.cnki.cn11-5581/r.2021.18.078.
- [3] Han, Zhang Zhongjing Treatise on Febrile Diseases [M]. Jin, Wang Shuhe, written times Qian Chaochen, Hao Wanshan, finishing Beijing: People's Health Publishing House, 2005: 35-36
- [4] Chen Dexing, Wen Xiaoping. *Pharmaceutics* [M]. Beijing: Tsinghua University Press, 2013: 127
- [5] Xu Aijun. Clinical observation of Gegen Qinlian Decoction enema combined with sulfasalazine enteric coated tablets in the treatment of chronic nonspecific ulcerative colitis [J]. *Northern pharmacy*, 2018, 15 (3): 60-61
- [6] He Jiabei, Yang Xiangdong. Observation on the efficacy of Gegen Qinlian Decoction in the treatment of large intestine damp heat ulcerative colitis [J]. *Sichuan Traditional Chinese medicine*, 2013, 31 (1): 104-105
- [7] Zhu Lili, Guo Hai, Zhao Xiaofeng et al 30 cases of mixed cold and heat ulcerative node treated with integrated traditional Chinese and Western medicine [J]. *Henan traditional Chinese medicine*, 2016, 36 (11): 1995-1997
- [8] Li Yi, Liu Yan, Liu Li. Statistical analysis of TCM syndrome differentiation and classification of ulcerative colitis [J]. *Chinese medicine Herald*, 2016, 22 (11): 94-95
- [9] Shi Fuguo. Clinical therapeutic effect and safety analysis of Banxia Xiexin Decoction in the treatment of chronic gastritis of spleen deficiency and stomach heat type [J]. *Journal of clinical medical literature*, 2019, 6 (47): 168+170 DOI: 10.16281/j.cnki.jocml.2019.47.147.
- [10] Wang Yanwei, Ji Jie, Gong Zihan et al. Clinical study on modified Banxia Xiexin Decoction in the treatment of spleen stomach damp heat syndrome of chronic atrophic gastritis [J]. *Shaanxi traditional Chinese medicine*, 2020, 41 (04): 499-501+537
- [11] Zhang Jiayan, Kang Xiuhong, Sun Mengyun. Qingre Jianpi Decoction (Qingre Jianpi Decoction) attenuates inflammatory responses by suppressing nod like receptor family pyrin domain containing 3 inflammasome activation in dextran sulfate sodium induced colitis mice [J]. *Journal of Traditional Chinese Medicine*, 2021, 41(01): 68-78. DOI: 10.19852/j.cnki.jtcm.2021.01.009.
- [12] Sheng Rongtuan, Chen Liangrong, Fang Jiansong et al. To explore the clinical study of Jianpi Qingre Huoxue Recipe on ulcerative colitis from the ultrastructural changes of colon mucosa and the expression of Claudin-2 and 5 [J]. *Chinese Journal of integrated traditional and Western medicine digestion*, 2020,28 (9): 688-692
- [13] Niu shaojuan, Zhang Xiaoyan, Ding Xiaokun, et al A review of the etiology and pathogenesis of ulcerative colitis [J] *Henan traditional Chinese medicine* 2019, 39(5):799-801
- [14] Liu Fen, Xie Huichen, Yang Qiang. Study on the split prescription of modified Huangqi Jianzhong Decoction in the treatment of peptic ulcer in rats [J]. *Bulletin of traditional Chinese medicine*, 2008, 7 (6): 26-28
- [15] Bai min, Duan Yongqiang, Yang Xiaoyi et al. Study on the protective effect and mechanism of Huangqi Jianzhong Decoction on gastric ulcer based on network pharmacology [J]. *Pharmacology and clinic of traditional Chinese medicine*, 2020, 36 (4): 75-80
- [16] Xu Wenqian, Hu Yinghuan, Qin Xuemei et al. Clinical application and experimental research progress of Huangqi Jianzhong Decoction [J]. *Journal of Shanxi University of traditional Chinese medicine*, 2018, 19 (1): 66-71
- [17] Liu Yuetao, Jin Zhidong, Qin Xuemei. Urinary metabolomics research for Huangqi Jianzhong Tang against chronic atrophic gastritis rats based on 1 H NMR and UPLC-Q/TOF MS. [J]. *The Journal of pharmacy and pharmacology*, 2020, 72(5):
- [18] Wang Yan, Duan Yongqiang, Zhu Xiangdong et al. Discussion on the therapeutic mechanism of traditional Chinese medicine intervention on ulcerative colitis based on "spleen kidney correlation" [J]. *Chinese Journal of traditional Chinese medicine information*, 2015, 22 (2): 99-101
- [19] Shen Xulong, Tang Xuegui, Ren Min et al. The overall concept in the consensus of guidelines for ulcerative colitis [J]. *Chinese Journal of anorectal diseases*, 2015, 35 (8): 55-57
- [20] Chen Si generation, Sheng Changjian, Zou Xiaohua. Clinical observation of modified Kuiyu decoction combined with sulfasalazine in the treatment of ulcerative colitis [J]. *Clinical Journal of traditional Chinese medicine*, 2011, 23 (3): 239-241
- [21] Qin Chengnan. Korean national day Ulcerative combined intestinal desalicylic acid and corticosteroid therapy [J]. *World Chinese Journal of digestion*, 2012, 8(3): 338-339

- [22] Xi Zuowu, Liu Wenqing, Wang Kai. *Clinical study on Huidi oral liquid combined with modified Fuzi Lizhong Decoction retention enema in the treatment of ulcerative colitis of spleen kidney yang deficiency type* [J]. *Journal of traditional Chinese medicine*, 2011, 26 (9): 1114-1116
- [23] Ji Peizhen, Zhang Yi, Li Xueping, Zhang Yanxiao, Jian Shengnan, Xie Peijun. *Effect of Fuzi Lizhong Decoction enema on NF in rats with ulcerative colitis of spleen kidney yang deficiency type-  $\kappa$  B, TNF-  $\alpha$ , IL-1  $\beta$  Influence of expression* [J]. *Chinese Journal of experimental formulary*, 2015, 21 (14): 124-128 DOI: 10.13422/j.cnki. syjfx. two billion fifteen million one hundred and forty thousand one hundred and twenty-four
- [24] Zhu Dan. *Effect of Fuzi Lizhong Decoction enema on serum TNF in rats with ulcerative colitis of spleen kidney yang deficiency type-  $\alpha$ , IL-  $\beta$ , Effect of IL-6 level* [D]. Chengdu: Chengdu University of traditional Chinese medicine, 2015
- [25] Liu Jiali, Yang Kun, Xu ailing et al. *Meta analysis of the effect of Fuzi Lizhong Decoction on ulcerative colitis* [J]. *Journal of Yunnan University of traditional Chinese medicine*, 2018, 41 (05): 27-31 DOI: 10.19288/j.cnki. issn. 1000-2723.2018.05.006.