

Research Progress in Traditional Chinese Medicine Treatment for Peptic Ulcer of Spleen-Stomach Deficiency-Cold Pattern

Xia Xin¹, Zhang Yue¹, Ding Ya¹, Ding Hui^{2,*}

¹The First Clinical School, Shaanxi University of Chinese Medicine, Xianyang 712046, Shaanxi, China

²Shaanxi Academy of Traditional Chinese Medicine, Xi'an 710003, Shaanxi, China

*Correspondence Author

Abstract: As a prevalent gastrointestinal disorder affecting 5%-10% of the global population, peptic ulcer disease (PUD) demonstrates considerable recurrence rates following conventional acid-suppressive and *Helicobacter pylori* eradication therapies. Emerging research highlights the therapeutic value of Traditional Chinese Medicine (TCM) in addressing the pathophysiological complexities of PUD, particularly through syndrome differentiation targeting the Spleen-Stomach Deficiency-Cold pattern. This pattern, characterized by yang qi insufficiency and middle jiao dysfunction, represents a fundamental TCM etiology in PUD progression. Our comprehensive review analyzes advanced treatment methodologies across four integrated therapeutic domains: evidence-based applications of classical formulas, innovative self-composed prescriptions, quality-controlled Chinese patent medicines, and specialized external techniques. By synthesizing current evidence and clinical applications, this work provides a sophisticated framework for advancing personalized TCM approaches in PUD management, addressing both symptomatic.

Keywords: PepticUlcer, Spleen-Stomach Deficiency-Cold Pattern, Traditional Chinese Medicine.

1. Introduction

Peptic Ulcer (PU) refers to the formation of ulcers through inflammatory reaction, necrosis, and exfoliation under the influence of various pathogenic factors. The lesion can involve the mucosal muscle layer and the proper muscle layer, and in severe cases, even penetrate the serosal layer [1]. Lesions can occur in the esophagus, stomach, duodenum, and Meckel's diverticulum. PU can cause serious complications such as gastrointestinal bleeding and perforation. The case-fatality rate for gastrointestinal bleeding is 5%-10%, and for gastrointestinal perforation, it is as high as 20% [2]. PU is a common disease worldwide. Statistics show that the lifetime prevalence of PU in the general population is about 5%-10%, with an annual incidence of 0.1%-0.3% [3]. Its typical clinical symptoms are chronic, periodic, and rhythmic epigastric pain. As a common and frequently-occurring disease in China, PU seriously threatens people's health and lives. There are no specific therapeutic drugs clinically, and treatment mostly involves symptomatic regimens such as acid suppression, gastric mucosal protection, and eradication of *Helicobacter pylori* (Hp). While the treatment effect is good, the disease recurrence rate is high. In recent years, numerous clinical studies have shown that TCM plays an increasingly prominent role in improving the Hp eradication rate, reducing PU recurrence, and alleviating clinical symptoms. The Spleen-Stomach Deficiency-Cold pattern is a common syndrome type of PU. This article collects and analyzes research literature on TCM treatment for PU with the Spleen-Stomach Deficiency-Cold pattern, summarizes the treatment approaches, and provides medication references for clinical practice.

2. Etiology and Pathogenesis

There is no disease name "Peptic Ulcer" in TCM. Based on its symptoms, TCM categorizes it under "epigastric pain" (Wei

Wan Tong), "acid regurgitation" (Tu Suan), or "stomach sore" (Wei Yang). Cases with atypical symptoms may also fall under "gastric upset" (Cao Za). Epigastric pain was first documented in "Huangdi Neijing". "Lingshu·Zhang Lun" states: "Stomach pain, smelling burnt odor through the nose, hindering eating, difficult defecation." Ancient physicians believed that the occurrence of this disease was mostly due to external pathogen invasion, internal damage from diet, emotional disorders, and spleen-stomach weakness. "Suwen · Ju Tong Lun" says: "When cold qi lodges between the intestines and stomach, below the membranes, the blood cannot disperse, the small collaterals urgently contract, hence pain" [4]. This suggests that external contraction of cold pathogens leads to stomach qi stagnation, causing pain from obstruction. "Suwen·Bi Lun" states: "When eating and drinking double, the spleen and stomach are injured," pointing out that overeating can damage the spleen and stomach [4]. "Shenshi Zunsheng Shu" states: "Stomach pain is a disease of pathogenic factors invading the stomach cavity [5]. Especially severe is liver qi invading the stomach, due to the wood nature being violent and it being the restraining element. The pain must involve the flanks, with internal urgency and inability to eat." This indicates that emotional distress leads to liver qi hyperactivity, which can invade the stomach causing pain. "Piwei Lun·Piwei Xushi Bianhua Lun" says: "Reviewing all chapters for reference, the sufficiency of primordial qi all relies on the spleen-stomach qi being uninjured, thereafter able to nourish primordial qi [6]. If the stomach qi is originally weak, and eating/drinking doubles, then the spleen-stomach qi is already injured, and primordial qi also cannot fill, hence the origin of all diseases." This suggests that inherent spleen-stomach deficiency makes them more susceptible to damage. Modern physicians have their own views on the etiology and pathogenesis of PU. Professor Liu Qiquan believes that PU is an internally generated sore, mostly caused by external pathogens, extreme emotions, dietary irregularities, etc., leading to heart fire flaming excessively in the spleen and stomach, subsequently causing nutrient-level

heat, flesh rotting, and developing into ulcers [7]. Professor Li Zhengsheng believes the key pathogenesis of PU lies in spleen deficiency (qi deficiency or yang deficiency), with spleen deficiency as the root and blood stasis as the branch, belonging to a deficiency-excess complex pattern [8]. Wang Weiming believe that the occurrence of peptic ulcer is often due to emotional distress leading to dysfunction of the liver's free coursing, which, because wood depression restricts earth, affects the spleen and stomach's transportation, transformation, ascending, and descending functions [9]. Spleen-stomach stagnation transforming into heat over time leads to local excessive heat in the epigastrium, excessive heat causing flesh rot, ultimately resulting in ulcer formation. Based on this pathogenesis, they established the treatment principle of coursing the liver and harmonizing the stomach to regulate qi movement, clearing heat and relieving pain as the core.

3. Pattern Differentiation

The 2023 edition of "Expert Consensus on TCM Diagnosis and Treatment of Peptic Ulcer" classifies PU into six patterns based on main and secondary symptoms: Spleen-Stomach Dampness-Heat pattern, Liver-Stomach Stagnant Heat pattern, Liver-Stomach Disharmony pattern, Stomach Yin Deficiency pattern, Spleen-Stomach Weakness (Deficiency-Cold) pattern, and Stomach Collaterals Static Obstruction pattern. Among these, the Spleen-Stomach Weakness (Deficiency-Cold) pattern often manifests as dull or lingering pain in the epigastric region, pain that can be alleviated by heat application, consuming hot food, or pressure, epigastric pain that worsens when hungry or tired, and consumption of raw or cold food inducing or aggravating discomfort. Patients often have cold limbs, general chills, susceptibility to fatigue and lack of energy, poor appetite or low food intake, and loose stools. The tongue is often pale or with teeth marks, coating thin and white; the pulse is commonly weak, foreeless, or slow [10]. Various physicians also have their own unique insights into PU patterns. Professor Wang Daokun often classifies PU into Yin Deficiency Stomach Pain type, Liver-Stomach Disharmony type, Spleen-Stomach Deficiency-Cold type, and Static Blood Retention type, among others [11].

4. Classical Formulas

Huangqi Jianzhong Tang (Astragalus Center-Fortifying Decoction) is the most commonly used and highly recognized formula for peptic ulcer of the Spleen-Stomach Deficiency-Cold pattern. Han Yu set the control group as patients with PU of Spleen-Stomach Deficiency-Cold pattern treated with quadruple therapy, and the experimental group as those receiving Huangqi Jianzhong Tang in addition to the control group's regimen [12]. After 2 weeks of treatment, it was found that Huangqi Jianzhong Tang better improved gastric motor function, increased the ulcer healing rate and Hp clearance rate, and reduced disease recurrence. Zhu Jun divided enrolled patients into control and observation groups. The control group received quadruple therapy, while the observation group received Xiao Jianzhong Tang (Minor Center-Fortifying Decoction) combined with quadruple

therapy [13]. Results after one month of treatment showed that the observation group's Hp eradication rate was 85.71%, higher than the control group's 65.31%, and its clinical symptom improvement was superior to the control group. Li Jia divided patients with PU of Spleen-Stomach Deficiency-Cold pattern into two groups [14]. The observation group received Yanghe Tang (Yang-Harmonizing Decoction) combined with quadruple therapy, while the control group received only quadruple therapy. Results showed the observation group's total effective rate reached 94.29%, significantly higher than the control group's 85.71%, and the observation group's endoscopic ulcer healing rate and mucosal repair effect were better than the control group. Zheng Jianhua found that for patients with PU of Spleen-Stomach Deficiency-Cold pattern, adding a modified Shenling Baizhu San (Ginseng, Poria, and Atractylodes Macrocephala Powder) to triple therapy significantly improved symptom relief rate, ulcer healing rate, and Hp eradication rate [15]. Jin Jiaojun found through clinical trials that for PU patients, adding a modified Xiangsha Liujuanzi Tang (Costusroot and Amomum Six Gentlemen Decoction) to a western regimen consisting of Esomeprazole Magnesium Enteric-Coated Tablets, Amoxicillin Capsules, and Colloidal Bismuth Pectin Capsules resulted in a higher Hp eradication rate and significantly lower ulcer recurrence rate after one year of follow-up compared to the control group using only the western regimen, and the time to recurrence was significantly delayed [16]. Luo Jian set the observation group as patients with PU of Spleen-Stomach Deficiency-Cold pattern treated with Omeprazole Enteric-Coated Capsules combined with Xiangsha Lizhong Tang (Costusroot and Amomum Center-Regulating Decoction), and the control group as similar patients treated with Omeprazole alone [17]. The study found that levels of inflammatory factors such as TNF- α and IL-6, and indicators like secretin and gastrointestinal hormones, were lower in the observation group than in the control group, suggesting that the combination of Omeprazole and Xiangsha Lizhong Tang is more effective in promoting ulcer healing, and can effectively regulate gastrointestinal hormone levels and improve the expression of inflammatory factors, thereby alleviating clinical symptoms. Li Fengchun set the control group as patients with PU of Spleen-Stomach Deficiency-Cold pattern treated only with Ranitidine Hydrochloride Capsules, and the observation group as similar patients treated with Guiqi Jianzhong Tang (Angelica and Astragalus Center-Fortifying Decoction) combined with modified Huanglian Lizhong Tang (Coptis Center-Regulating Decoction) [18]. Results showed that the improvement in clinical symptoms in the observation group was significantly better than in the control group, and the incidence of adverse reactions was significantly lower. Nie Jingtao set the control group as patients treated only with Omeprazole combined with Amoxicillin Capsules, while the observation group received Xiao Jianzhong Tang (Minor Center-Fortifying Decoction) combined with Liangfu Wan (Galangal and Cyperus Pill) in addition to the control group's treatment [19]. Post-treatment results showed that the total effective rate of the observation group was significantly higher than that of the control group, suggesting that this integrated Chinese-Western medicine regimen can significantly improve clinical symptoms and enhance therapeutic efficacy.

5. Self-composed Formulas

Based on their own clinical practice and medication experience, many modern physicians have developed several effective empirical formulas for treating PU of the Spleen-Stomach Deficiency-Cold pattern. Wang Jiandong set the control group as patients with PU of Spleen-Stomach Deficiency-Cold pattern treated with Rabepazole only, and the study group as similar patients treated with Rabepazole combined with Yuyang Jianpi Formula (Ulcer-Healing and Spleen-Fortifying Formula). After 4 weeks of treatment, the total effective rate in the study group was significantly higher than in the control group, and the H⁺-K⁺-ATPase activity was lower, suggesting that the combination of Yuyang Jianpi Formula and proton pump inhibitors can effectively improve patients' clinical symptoms and gastric environment, promoting ulcer repair [20]. Cheng Tao used Jianpi Yuwei Tang (Spleen-Fortifying and Stomach-Healing Decoction) combined with quadruple therapy to treat patients with PU of Spleen-Stomach Deficiency-Cold pattern. Clinical trials found that adding Jianpi Yuwei Tang to quadruple therapy effectively alleviated clinical symptoms, reduced gastric mucosal damage, inhibited TGF- β and Smad3 expression levels, lowered ulcer recurrence rate, and did not increase the risk of adverse reactions [21]. Wu Yuqing found through clinical trials that the total effective rate for treating patients with PU of Spleen-Stomach Deficiency-Cold pattern with Rabepazole Sodium Enteric-Coated Capsules combined with the self-composed Weifu Tang (Stomach-Restoring Decoction) was 97.5%, significantly higher than 77.5% with Rabepazole alone [22]. This combination regimen can effectively improve the gastrointestinal environment and accelerate the recovery process. Luo Yinhu found through clinical trials that using Omeprazole Enteric-Coated Capsules combined with Wenwei Bupi Tang (Stomach-Warming and Spleen-Tonifying Decoction) to treat PU of Spleen-Stomach Deficiency-Cold pattern not only improved the total effective rate but also resulted in serum levels of MDA, GAS, SOD, IL-10, TNF- α and other related indicators being significantly better than those in the group treated with Omeprazole alone [22]. This combination regimen can significantly enhance therapeutic effects and accelerate patient recovery. Wang Linghong set the combination group as patients using the self-composed 15-ingredient Jianpi Humo Tang (Spleen-Fortifying and Membrane-Protecting Decoction) combined with quadruple therapy, and the control group as patients using only quadruple therapy [24]. Results showed that the total effective rate, Hp clearance rate, and excellent/good ulcer healing rate in the combination group were all higher than those in the control group, and the ulcer recurrence rate was lower. Yang Di divided patients with PU of Spleen-Stomach Deficiency-Cold pattern into two groups via a controlled clinical trial: the control group received triple therapy only, while the observation group received Wenzhong Xiaoyang Tang (Center-Warming and Ulcer-Dispersing Decoction) combined with triple therapy [25]. Results found that compared to the control group, the observation group significantly increased the total effective rate, reduced ulcer recurrence rate, and effectively improved clinical symptoms. Chen Zhaoyang divided patients with PU of Spleen-Stomach Deficiency-Cold pattern into two groups via a controlled clinical trial: the study group received quadruple therapy combined with Wenyang Piwei Tang (Spleen-Stomach

Warming and Nourishing Decoction), while the control group received quadruple therapy alone [26]. Results found that the total effective rate and Hp clearance rate in the observation group were higher than those in the control group, and the Hp reinfection rate, ulcer recurrence rate, and incidence of adverse reactions in the observation group were significantly lower than those in the control group. Li Mo divided patients with PU of Spleen-Stomach Deficiency-Cold pattern into two groups: the treatment group received Omeprazole Enteric-Coated Tablets combined with Levofloxacin and the oral Yiqi Jianpi Formula (Qi-Boosting and Spleen-Fortifying Formula), while the control group received Western dual therapy alone [27]. After 14 days of treatment, the total effective rate in the treatment group was 96.15%, higher than the control group's 82.93%. Furthermore, the time to improvement of disease-related symptoms and ulcer healing time in the observation group receiving the oral Yiqi Jianpi Formula were shorter than in the control group. Tian Zhaohua set the treatment group as patients with PU of Spleen-Stomach Deficiency-Cold pattern receiving oral Wenwei Formula (Stomach-Warming Formula) combined with standard triple therapy, and the control group as patients receiving standard triple therapy alone [28]. Post-treatment results showed the total effective rate in the treatment group was 98.04%, higher than the control group's 80.39%. Furthermore, the ulcer recurrence rate in the treatment group was 6.67%, significantly lower than the control group's 33.33%. Ji Wenlong randomly divided 76 patients with PU of Spleen-Stomach Deficiency-Cold pattern equally into control and treatment groups [29]. The control group received oral Amoxicillin + Clarithromycin + Sucralfate Mixed Gel, while the treatment group received oral Liansuan Shengji Kuiyang San (Acid-Astringing and Tissue-Generating Ulcer Powder) in addition to the control group's treatment. Post-treatment, the total effective rate in the treatment group was 94.74%, higher than the control group's 68.42%. Follow-up after 6 months showed the recurrence rate in the treatment group was 7.89%, significantly lower than the control group's 39.47%. Liu Fangling set the treatment group as patients with PU of Spleen-Stomach Deficiency-Cold pattern treated with the oral TCM formula Zuojin Kuiyang Formula (Left Metal Ulcer Formula), and the control group as those treated with Omeprazole Enteric-Coated Capsules and Amoxicillin Capsules [30]. Post-treatment, the total effective rate in the treatment group was 90%, higher than the control group's 76%. Follow-up of the treatment group showed an ulcer recurrence rate of 16%, lower than the control group's 40%. Combined efficacy comparison results indicated that Zuojin Kuiyang Formula can promote ulcer healing and reduce disease recurrence rate in patients with PU of Spleen-Stomach Deficiency-Cold pattern. Yang Yuling set the treatment group as patients with PU of Spleen-Stomach Deficiency-Cold pattern receiving oral self-composed Jianzhong Yuyang San (Center-Fortifying and Ulcer-Healing Powder) combined with standard triple therapy, and the control group as patients receiving triple therapy alone [31]. After 8 weeks of treatment, the clinical cure rate and Hp clearance rate in the treatment group were higher than those in the control group. Follow-up after 4 months showed no ulcer recurrence upon gastroscopy reexamination in the treatment group. Wu Hongze divided patients with PU of Spleen-Stomach Deficiency-Cold pattern into two groups: the treatment group received oral self-composed Chinese medicine Kuiyang Tang (Ulcer

Decoction), and the control group received oral Ranitidine Capsules [32]. After 6 weeks of treatment, the total effective rate in the treatment group was 93.55%, higher than the control group's 82.76%. Results indicated that the self-composed Kuiyang Tang can significantly improve clinical symptoms and promote ulcer healing. Xia Xinqi divided patients with PU of Spleen-Stomach Deficiency-Cold pattern into control and treatment groups [33]. The control group received oral Ranitidine, with Amoxicillin added for Hp-positive cases. The treatment group received oral Weitong Ning Tang (Stomach Pain Quieting Decoction) in addition to the control group's regimen. Post-treatment results showed that the ulcer healing rate and Hp negative conversion rate in the treatment group were significantly higher than those in the control group, and the incidence of adverse reactions in the treatment group was also significantly lower. Ou Yan randomly divided 120 patients with PU of Spleen-Stomach Deficiency-Cold pattern equally into control and treatment groups [34]. The control group received quadruple therapy, while the treatment group received oral self-composed Jianwei Formula (Stomach-Fortifying Formula) combined with the control group's quadruple therapy. Post-treatment, the total effective rate in the treatment group was 83.33%, compared to 66.67% in the control group. Research results showed that Jianwei Formula combined with quadruple therapy is more effective than quadruple therapy alone for treating PU of Spleen-Stomach Deficiency-Cold pattern. Wang Qinqin randomly divided patients with PU of Spleen-Stomach Deficiency-Cold pattern into two groups [35]. The observation group received oral self-composed Xianhoutian Formula (Former and Later Heaven Formula), while the control group received Omeprazole Enteric-Coated Tablets combined with Hydrotalcite Tablets. After 6 weeks of treatment, the total effective rate in the observation group was significantly higher than in the control group. Follow-up after one year showed that the ulcer recurrence rate and incidence of adverse reactions in the observation group were lower than those in the control group. Xiang Dong randomly divided 100 patients with PU of Spleen-Stomach Deficiency-Cold pattern equally into treatment and control groups. The treatment group received oral self-composed Jianpi Wenwei Yuyang Tang (Spleen-Fortifying, Stomach-Warming, and Ulcer-Healing Decoction), while the control group received oral Ranitidine. After 8 weeks of treatment, the total effective rate in the treatment group was 98%, higher than the control group's 94% [36]. Experimental results indicated that Jianpi Wenwei Yuyang Tang has good efficacy in treating patients with PU of Spleen-Stomach Deficiency-Cold pattern.

6. Chinese Proprietary Medicines

Shen Jiayi set the treatment group as patients with PU of Spleen-Stomach Deficiency-Cold pattern treated with quadruple therapy combined with Xuhan Weitong Keli (Deficiency-Cold Stomach Pain Granules), and the control group as patients receiving quadruple therapy alone [37]. Results showed that adding Xuhan Weitong Keli to quadruple therapy improved clinical efficacy, reduced the incidence of adverse reactions, regulated gastrointestinal hormone levels, alleviated inflammatory response, and increased the Hp clearance rate. Li Zhen used Anweiyang Capsules combined with triple therapy to treat patients with PU of Spleen-Stomach Deficiency-Cold pattern, finding that adding

Anweiyang Capsules resulted in better clinical efficacy compared to triple therapy alone [38]. Yao Peng divided patients with PU of Spleen-Stomach Deficiency-Cold pattern into two groups. The treatment group received Laokou Wan (Old Cardamom Pill), while the control group received Ranitidine [39]. Post-treatment, the total effective rate in the treatment group was 94.29%, higher than the control group's 87.87%. The experiment proved that Laokou Wan can improve clinical symptoms and promote ulcer healing. Fan Shuangli divided patients with PU of Spleen-Stomach Deficiency-Cold pattern into control and treatment groups. The control group used triple therapy, while the treatment group received Wenweishu (Stomach-Warming Comfort) combined with triple therapy [40]. Post-treatment, the total effective rate in the treatment group was 90.6%, higher than the control group's 71.9%. Results indicated that Wenweishu combined with triple therapy has a more significant effect for patients with PU of Spleen-Stomach Deficiency-Cold pattern.

7. External Treatments and Others

Kuang Lihuaset the observation group as patients treated with acupoint application made from Cyperus, Evodia, Asaru m, Fennel ground with garlic paste to form a plaster, combined with Bupi Jianzhong Tang (Spleen-Tonifying and Center-Fortifying Decoction), and the control group as patients treated only with Omeprazole Enteric-Coated Capsules [41]. Results showed the total effective rate in the observation group was 95.45%, higher than the control group's 83.61%, and the levels of IL-10 and TNF- α in the observation group were significantly lower than those in the control group. The experiment indicated that acupoint application combined with Bupi Jianzhong Tang can significantly improve clinical symptoms, reduce inflammatory factor levels, and enhance therapeutic efficacy. Xie Tixue set the treatment group as patients receiving the external TCM treatment Gu You Jiu (Hooping Oil Moxibustion) combined with oral self-composed Hewei Anzhong Tang (Stomach-Harmonizing and Center-Calming Decoction), and the control group as patients treated with Omeprazole Capsules, Amoxicillin Capsules, and Colloidal Bismuth Pectin Capsules [42]. Research results showed that the total effective rate and ulcer healing rate in the treatment group were higher than those in the control group. Results indicated that Gu You Jiu combined with oral self-composed Hewei Anzhong Tang can improve clinical symptoms and promote ulcer healing. Zhang Yueshun selected 40 patients with PU of Spleen-Stomach Deficiency-Cold pattern and treated them with self-composed Weiyu Tang (Stomach-Healing Decoction) combined with acupuncture and moxibustion [43]. They used the reinforcing method to acupuncture Zhongwan (CV12), Neiguan (PC6), Qihai (CV6), Pishu (BL20), Weishu (BL21), Zusanli (ST36), Gongsun (SP4), and added moxa stick moxibustion. Post-treatment, 29 cases were cured, 10 improved, and 1, with a total effective rate of 97.5%. Results showed that this regimen can improve clinical symptoms and promote ulcer healing. Shi Le divided patients with PU of Spleen-Stomach Deficiency-Cold pattern into two groups. The control group received oral Omeprazole Enteric-Coated Capsules, while the treatment group received additional treatment with a Wuzisan (Five Seeds Powder) hot compress pack composed of Semen Sinapis Albae, Perillae Fructus, Evodiae Fructus, Semen Cuscutae, and Psoraleae

Fructus applied to the abdomen. Results showed the total improvement rate for epigastric pain in the treatment group was 100%, significantly higher than the control group's 75%. Results indicated that the Wuzisan hot compress pack can significantly improve clinical symptoms and enhance clinical efficacy [44]. Fan Junqiang administered Buzhong Yiqi Tang (Center-Supplementing and Qi-Boosting Decoction) combined with ginger-partitioned pu moxibustion to the observation group, while the control group received Omeprazole, Amoxicillin, and Colloidal Bismuth Pectin Capsules [45]. Post-treatment, the total effective rate in the observation group was 95.83%, higher than the control group's 83.33%, and the levels of inflammatory factors IL-6 and TNF- α in the observation group were lower than those in the control group. Research results indicated that the regimen of Buzhong Yiqi Tang combined with ginger-partitioned pu moxibustion can significantly improve clinical symptoms and reduce inflammatory factor levels. Jing Chunhua divided patients with PU of Spleen-Stomach Deficiency-Cold pattern into control and observation groups. The control group received quadruple therapy, while the observation group received Thunder-Fire Moxibustion in addition to the control group's treatment [46]. Post-treatment, the total effective rate in the observation group was 90%, significantly higher than the control group's 72.5%, indicating that Thunder-Fire Moxibustion combined with quadruple therapy has better clinical efficacy than quadruple therapy alone.

8. Summary

This article summarizes and analyzes the research progress in TCM treatment for peptic ulcer of the Spleen-Stomach Deficiency-Cold pattern from the dimensions of classical formulas, self-composed formulas, Chinese proprietary medicines, and external treatments. Analysis results show that compared to conventional Western medicine treatment, TCM treatment for this pattern can significantly increase the total effective rate, improve clinical symptoms, increase the Hp eradication rate, and reduce the disease recurrence rate and incidence of treatment-related adverse reactions.

However, current research on TCM treatment for this pattern still has limitations: most are based on small-sample clinical studies, lacking support from basic experimental research, the mechanism of action has not been clarified, efficacy evaluation standards are not unified, and long-term follow-up data are lacking. Therefore, research can be improved in the following aspects: expand the sample size of clinical research, strengthen basic experimental research, further clarify the mechanism of action of TCM from perspectives such as modern pharmacology and cell molecular biology; establish unified and comprehensive efficacy evaluation standards, conduct long-term follow-up studies to improve the clinical credibility of TCM treatment; fully leverage the advantages of TCM treatment, enabling TCM to exhibit stronger vitality in modern times.

References

- [1] Li YF, Wang CJ. Interpretation of "Expert Consensus on Traditional Chinese Medicine Diagnosis and Treatment of Peptic Ulcer (2023)" [J]. *Chin J Integr Trad West Med Dig*, 2024, 32(6): 507-510.
- [2] Sun J, Huang L, Li R, et al. Comparison of secular trends in peptic ulcer diseases mortality in China, Brazil and India during 1990–2019: an age-period-cohort analysis [C]//Healthcare. Basel, Switzerland: MDPI, 2023, 11(8): 1085.
- [3] Lanan A, Chan FKL. Peptic ulcer disease [J]. *Lancet*, 2017, 390(10094): 613-624.
- [4] Nanjing University of Chinese Medicine. *Huangdi Neijing* [M]. Shanghai: Shanghai Scientific & Technical Publishers; 2018.
- [5] Shen JA, Gao P, Tian SS. *Shenshi Zunsheng Shu* [M]. Beijing: China Press of Traditional Chinese Medicine; 1997.
- [6] Li DY, Zhao LN, Zhang Y. *Piwei Lun* [M]. Guangzhou: Guangdong Science and Technology Press; 2025.
- [7] Gao Q, Dong XY, Liang XY, et al. Liu Qiquan's Experience in Treating Peptic Ulcer from the Heart [J]. *J Emerg Tradit Chin Med*, 2023, 32(6): 1089-1091.
- [8] Song XL, Shi XR, Zhang H, et al. Professor Li Zhengsheng's Experience in Treating Peptic Ulcer Using the Dynamic Pattern Identification Method of Spleen, Stomach, and Liver [J]. *Tradit Chin Med Res*, 2019, 32(8): 34-35.
- [9] Wang WM, Liu XK, Shi JX, et al. Analysis of TCM Essentials for Treating Peptic Ulcer from the Liver Based on the Brain-Gut Axis Theory [J]. *Glob Tradit Chin Med*, 2025(4). [Note: Volume/Issue/Pages likely missing from original citation].
- [10] Li YF, Wang CJ. Interpretation of "Expert Consensus on Traditional Chinese Medicine Diagnosis and Treatment of Peptic Ulcer (2023)" [J]. *Chin J Integr Trad West Med Dig*, 2024, 32(6): 507-510.
- [11] Liu JH, Li YJ, Lai XQ, et al. Wang Daokun's Clinical Experience in Treating Peptic Ulcer by Regulating Qi and Blood [J]. *China J Tradit Chin Med Pharm*, 2024, 39(3): 1300-1304.
- [12] Han Y, Gao JQ, Liu T, et al. Effects of Modified Huangqi Jianzhong Tang Combined with Quadruple Therapy on Gastric Motor Function and Ulcer Healing in Patients with Hp-Positive Gastric Ulcer of Spleen-Stomach Deficiency-Cold Pattern [J/OL]. *Chin Arch Tradit Chin Med*, 1-11 [2025-08-11]. <https://link.cnki.net/urlid/21.1546.r.20250619.1508.004>.
- [13] Zhu J. Clinical Effect of Xiao Jianzhong Tang Combined with Anti-Helicobacter pylori Quadruple Regimen in Patients with Peptic Ulcer of Spleen-Stomach Deficiency-Cold Pattern [J]. *Reflexol Rehabil Med*, 2025, 6(2): 29-32.
- [14] Li J, Zhang H, Xu BX. Clinical Observation on 35 Cases of Hp-Positive Peptic Ulcer with Spleen-Stomach Deficiency-Cold Pattern Treated with Integrated Traditional Chinese and Western Medicine [J]. *Chin J Ethnomed Ethnopharm*, 2021, 30(20): 91-95.
- [15] Zheng JH. Clinical Observation on Modified Shenling Baizhu San Combined with Triple Therapy for Peptic Ulcer of Spleen-Stomach Deficiency-Cold Pattern [J]. *J Bingtuan Med*, 2009, 21(3): 10-11.
- [16] Jin JJ, Lou QQ, Ye YS. Clinical Study on Integrated Traditional Chinese and Western Medicine for Peptic Ulcer of Spleen-Stomach Deficiency-Cold Pattern [J]. *J New Chin Med*, 2015, 47(4): 91-92.

- [17] Luo J, Liu KM, Lin LY. Effects of Xiangsha Lizhong Tang on Inflammatory Factor Levels and Gastrointestinal Hormones in Patients with Peptic Ulcer of Spleen-Stomach Deficiency-Cold Pattern [J]. *Clin J Chin Med*, 2020, 12(28): 101-103.
- [18] Li FC, Yin Y. Clinical Observation on Warming the Middle and Fortifying the Spleen Method for Treating Deficiency-Cold Chronic Peptic Ulcer and Chronic Non-specific Ulcers [J]. *China's Naturopathy*, 2020, 28(5): 33-34.
- [19] Nie JT. Analysis of the Effect of Xiao Jianzhong Tang Combined with Liangfu Wan and Western Medicine on Peptic Ulcer of Spleen-Stomach Deficiency-Cold Pattern [J]. *Jilin Med J*, 2016, 37(3): 664-665.
- [20] Wang JD. Clinical Observation on Yuyang Jianpi Formula Combined with Proton Pump Inhibitors for Peptic Ulcer of Spleen-Stomach Deficiency-Cold Pattern [J]. *Prim Med Forum*, 2024, 28(36): 153-156.
- [21] Cheng T, An XL, Li K. Clinical Efficacy of Jianpi Yuwei Tang Combined with Quadruple Regimen in Patients with Gastric Ulcer of Spleen-Stomach Deficiency-Cold Pattern [J]. *Chin J Rational Drug Use*, 2025, 22(4): 134-140.
- [22] Wu YQ. Clinical Study on Weifu Tang for Peptic Ulcer of Spleen-Stomach Deficiency-Cold Pattern [J]. *J Pract Tradit Chin Med*, 2024, 40(1): 41-43.
- [23] Luo YH. Efficacy of Wenwei Bupi Tang Combined with Omeprazole for Peptic Ulcer of Spleen-Stomach Deficiency-Cold Pattern [J]. *Inn Mong J Tradit Chin Med*, 2022, 41(11): 23-24.
- [24] Wang LH, Xiang M, Zhan SB, et al. Effect and Related Mechanism of Self-formulated 15-Ingredient Jianpi Humo Tang plus Anti-Hp Quadruple Regimen for Chronic Peptic Ulcer of Spleen-Stomach Deficiency-Cold Pattern [J]. *Clin Misdiagn Misther*, 2023, 36(9): 112-117.
- [25] Yang D. Clinical Study on Wenzhong Xiaoyang Tang Combined with Conventional Western Medicine for Gastric Ulcer of Spleen-Stomach Deficiency-Cold Pattern [J]. *J New Chin Med*, 2021, 53(19): 98-101.
- [26] Chen ZY. Observation on the Effect of Wenyang Piwei Tang Combined with Western "Quadruple Therapy" for Hp-Positive Peptic Ulcer of Spleen-Stomach Deficiency-Cold Pattern [J]. *Clin J Chin Med*, 2020, 12(32): 43-46.
- [27] Li M. Observation on the Clinical Efficacy of Yiqi Jianpi Formula for Gastric Ulcer of Spleen-Stomach Deficiency-Cold Pattern [J]. *Asia-Pac Tradit Med*, 2018, 14(2): 181-182.
- [28] Tian ZH, Tang CY, Wang ZG. Wenwei Fang Combined with Triple Therapy for Gastric Ulcer (Deficiency-Cold): A Randomized Parallel Controlled Study [J]. *J Pract Tradit Chin Intern Med*, 2018, 32(6): 28-30.
- [29] Ji WL. Liansuan Shengji Kuyang San Combined with Western Medicine for Deficiency-Cold Peptic Ulcer: A Randomized Parallel Controlled Study [J]. *J Pract Tradit Chin Intern Med*, 2017, 31(1): 57-58+67.
- [30] Liu FL, Zhao FF, Wang WL, et al. Zuojin Kuyang Formula for 50 Cases of Gastric Ulcer of Spleen-Stomach Deficiency-Cold Pattern [J]. *Chin Med Mod Distance Educ China*, 2016, 14(20): 69-70.
- [31] Yang YL, Geng P, Yang LC. Observation on the Efficacy of Jianzhong Yuyang San Combined with Western Medicine for Peptic Ulcer of Spleen-Stomach Deficiency-Cold Pattern [J]. *Pract Clin J Integr Tradit Chin West Med*, 2014, 14(7): 22-23+28.
- [32] Wu HZ, Liu YF. Kuyang Tang for 31 Cases of Peptic Ulcer of Spleen-Stomach Deficiency-Cold Pattern [J]. *Jiangxi J Tradit Chin Med*, 2008, 39(12): 19.
- [33] Xia XQ. Clinical Observation on Integrated Traditional Chinese and Western Medicine for Peptic Ulcer of Spleen-Stomach Deficiency-Cold Pattern [J]. *J Guangdong Med Coll*, 2005, (4): 433-434.
- [34] Ou Y. Observation on the Efficacy of Integrated Traditional Chinese and Western Medicine for Hp Infection-Related Peptic Ulcer of Spleen-Stomach Deficiency-Cold Pattern [J]. *J Pract Tradit Chin Med*, 2016, 32(12): 1181-1182.
- [35] Wang QQ. Clinical Study on Modified Xianhoutian Formula for Peptic Ulcer [J]. *J New Chin Med*, 2022, 54(13): 60-64.
- [36] Xiang D, Ding H. Clinical Observation on Jianpi Wenwei Yuyang Tang for 50 Cases of Duodenal Ulcer [J]. *J Tradit Chin Med*, 2009, 50(S1): 182.
- [37] Shen JY, Shan JK, Ji RY. Clinical Study on Xuhan Weitong Keli Combined with Western Medicine for Elderly Patients with Hp-Positive Gastric Ulcer [J]. *J New Chin Med*, 2024, 56(5): 81-85.
- [38] Li Z, Sun XN. Clinical Study on Anweiyang Capsules Combined with Ilaprazole for Peptic Ulcer of Deficiency-Cold Pattern [J]. *World Latest Med Inf*, 2016, 16(55): 181.
- [39] Yao P. Laokou Wan for 35 Cases of Peptic Ulcer of Spleen-Stomach Deficiency-Cold Pattern [J]. *Henan Tradit Chin Med*, 2014, 34(3): 556-557.
- [40] Fan SL. Randomized Controlled Clinical Study on Wenweishu Combined with Triple Therapy for Peptic Ulcer of Spleen-Stomach Deficiency-Cold Pattern [J]. *J Pract Tradit Chin Intern Med*, 2012, 26(17): 26-27.
- [41] Kuang LH. Clinical Observation on Acupoint Application Guided by Floating-Sinking Pulse Diagnosis Combined with Bupi Jianzhong Tang for Peptic Ulcer of Spleen-Stomach Deficiency-Cold Pattern [J]. *Guangming J Chin Med*, 2020, 35(12): 1791-1792.
- [42] Xie TX, Cai JJ. Clinical Study on Gu You Jiu Combined with Hewei Anzhong Tang for Peptic Ulcer of Spleen-Stomach Deficiency-Cold Pattern [J]. *J Hubei Univ Chin Med*, 2012, 14(5): 50-51.
- [43] Zhang YS, Yang ZP. Oral Chinese Herbal Medicine Combined with Acupuncture and Moxibustion for 40 Cases of Peptic Ulcer of Spleen-Stomach Deficiency-Cold Pattern [J]. *Clin J Chin Med*, 2012, 4(20): 59-60.
- [44] Shi L, Li MX, Chen L, et al. Clinical Observation on Wuzisan Hot Compress Pack for Duodenal Ulcer of Spleen-Stomach Deficiency-Cold Pattern [J]. *China's Naturopathy*, 2024, 32(2): 34-37.
- [45] Fan JQ, Wang YF. Effect of Buzhong Yiqi Tang and Ginger-Partitioned Pu Moxibustion on Gastric Ulcer of Spleen-Stomach Deficiency-Cold Pattern [J]. *Clin Med Eng*, 2022, 29(9): 1215-1216.
- [46] Jing CH, Li SP, Sun M, et al. Observation on the Efficacy of Thunder-Fire Moxibustion in Patients with Gastric Ulcer of Spleen-Stomach Deficiency-Cold Pattern [J]. *China Contin Med Educ*, 2020, 12(33): 156-160.