

Clinical Efficacy of Chaihu Shugan Powder Classical Formula in Treating Chronic Superficial Gastritis with Liver-Stomach Disharmony

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Abstract [Objectives] To investigate the clinical efficacy of Chaihu Shugan Powder on chronic superficial gastritis with liver-stomach disharmony syndrome. [Methods] A total of 72 patients diagnosed with chronic superficial gastritis characterized by liver-stomach disharmony syndrome between September 2023 and August 2024 were randomly assigned into two groups. The control group received treatment with western medicine, and the treatment group was administered both western medicine and Chaihu Shugan Powder. The therapeutic effects, TCM syndrome scores, adverse reactions, and recurrence rate were compared between the two groups. [Results] The total effective rate was 88.89% in the treatment group and 80.56% in the control group. The differences between the two groups were statistically significant ($P < 0.05$), indicating that the improvement observed in the treatment group was significantly greater than that in the control group ($P < 0.05$). In comparison to pre-treatment levels, the TCM syndrome scores for both patient groups exhibited a reduction following treatment. Notably, the extent of this reduction in the treatment group was significantly greater than that observed in the control group ($P < 0.05$). Neither group of patients experienced serious adverse reactions during treatment. Furthermore, the recurrence rate among patients in the control group was found to be higher than that in the treatment group. [Conclusions] The clinical efficacy of Chaihu Shugan Powder in the treatment of chronic superficial gastritis with liver-stomach disharmony syndrome is significant, demonstrating a notable reduction in the recurrence rate of the condition.

Key words Chaihu Shugan Powder, Stomachache, Chronic superficial gastritis, Liver-stomach disharmony syndrome

1 Introduction

Chronic superficial gastritis (CSG) is a chronic superficial inflammatory disease of gastric mucosa, which is a common and frequently-occurring disease of the digestive system. Numerous pathogenic factors contribute to its development. After morbidity, various degrees of dyspepsia may manifest, including epigastric discomfort postprandially, epigastric pain, belching, gastric pantothenic acid, nausea and vomiting^[1]. Edema and yellow-white secretion are observable during gastroscopy and represent the primary clinical signs and symptoms of superficial gastritis. The syndrome characterized by disharmony between the liver and stomach is attributed to the stagnation of liver-qi, disharmony of the stomach, abnormal emotions and excessive dispersion of qi. These factors adversely affect the spleen and stomach, resulting in symptoms such as belching and acid regurgitation, and may eventually

lead to epigastric pain^[2]. This study investigated the clinical efficacy of Chaihu Shugan Powder in the treatment of chronic superficial gastritis with liver-stomach disharmony syndrome. The findings are presented below.

2 Data and methods

2.1 Clinical data A total of 72 patients diagnosed with chronic superficial gastritis characterized by liver-stomach disharmony syndrome, who were treated at Helan County Traditional Chinese Medicine Hospital between September 2023 and August 2024, were selected for this study. The patients were randomly assigned to either a treatment group or a control group, with each group comprising 36 cases. The baseline characteristics of patients in the two groups, including gender, age, and course of disease, were not statistically significant ($P > 0.05$) and were comparable (Table 1).

Table 1 Comparison of general data of patients in the two groups ($n = 36$)

Group	Gender//cases		Age//years			Course of disease//d		
	Male	Female	Min	Max	Average ($\bar{x} \pm s$)	Shortest	Longest	Average ($\bar{x} \pm s$)
Treatment	20	16	25	65	54.6 \pm 10.4	16	214	182.8 \pm 31.2
Control	19	17	26	65	53.9 \pm 11.1	33	198	171.9 \pm 26.1

2.2 Diagnostic criteria In Western medicine, patients diagnosed with chronic gastritis were identified through gastroscopy, which may be accompanied by clinical signs and symptoms including loss of appetite, distending pain and discomfort in the stom-

ach^[3]. In TCM, the condition was characterized by typical symptoms such as epigastric pain, which may be accompanied by constipation, chest distress, belching, stagnation of liver-qi and other symptoms^[4]. The patients' ages varied from 25 to 65 years, and they had not received any other treatment drugs within the preceding 15 d.

2.3 Inclusion criteria (i) Participants must meet the diagnostic criteria established by both traditional Chinese medicine

and western medicine; (ii) individuals aged between 25 and 65 years, processing normal consciousness and clear consciousness could be eligible, regardless of their occupation, gender, or nationality; (iii) the duration of the disease must be a minimum of 15 d; (iv) participants should provide informed consent.

2.4 Exclusion criteria (i) Individuals who did not fulfill the specified diagnostic criteria and inclusion criteria; (ii) individuals diagnosed with hyperthyroidism, diabetes, pancreatitis, cholecystitis, gastric ulcer, gastric tumor, or other diseases; (iii) individuals who were allergic to the study drugs or allergic constitution; (iv) individuals who were complicated with severe mental illness, nervous system disease and other serious primary diseases; (v) patients with severe illness and unable to accurately evaluate the safety and effectiveness of drugs; (vi) individuals who were unable to comply with the treatment protocols and failed to adhere to the prescribed treatment regimen, or incomplete data that may affect the judgment of curative effect.

2.5 Treatment The control group received Omeprazole treatment (Beijing Yuekang Pharmaceutical Group Co., Ltd., GYZZ H20056577) at a dosage of 20 mg, administrated once or twice daily. The medication was to be taken in the morning, or alternatively, once in the morning and once in the evening. The treatment duration was set for 1 month^[5]. The treatment group was treated with Chaihu Shugan Powder, which was composed of 6 g of Pericarpium citri reticulatae, 6 g of Radix Bupleuri, 4.5 g of Rhizoma Ligustici Wallichii, 4.5 g of Rhizoma Cyperi, 4.5 g of Fructus Aurantii, 4.5 g of Radix Paeoniae, and 1.5 g of Radix Glycyrrhizae Preparata^[6]. After decoction with distilled water, a total of 5 000 mL of the resulting liquid was administrated, with one dose taken twice daily, in the morning and evening. The treatment was conducted continuously for a duration of 1 month.

2.6 Observation index and criteria

2.6.1 Observation index. Stomachache, sour regurgitation, belching, anorexia, fullness and hiccup were evaluated by TCM syndrome evaluation criteria. The scoring system ranged from 0 to 6 points, with higher scores indicating more severe clinical signs and symptoms.

Table 3 TCM syndrome scores of two groups of patients before and after treatment ($\bar{x} \pm s$, $n=36$, points)

Group	Time	Stomachache	Gastric pantothenic acid	Belching	Hiccup	Secondary symptoms
Treatment	Before treatment	2.5 ± 0.4	2.3 ± 0.2	2.1 ± 0.6	1.9 ± 0.6	3.9 ± 1.3
	After treatment	0.7 ± 0.2 ^{#*}	0.5 ± 0.8 ^{#*}	0.9 ± 0.4 ^{#*}	0.7 ± 0.2 ^{#*}	1.3 ± 0.2 ^{#*}
Control	Before treatment	2.4 ± 0.3	2.3 ± 0.3	1.9 ± 0.6	1.7 ± 0.4	3.9 ± 0.8
	After treatment	1.1 ± 0.3 [#]	1.1 ± 0.2 [#]	1.0 ± 0.4 [#]	0.7 ± 0.4 [#]	1.3 ± 0.2 [#]

NOTE * Compared with before treatment, $P<0.05$; [#] Compared with the control group, $P<0.05$.

3.3 The recurrence rate and incidence of adverse reactions

Neither group of patients experienced serious adverse reactions during treatment. Both groups were monitored for a minimum duration of 100 d. Within the treatment group, there were two instances of recurrence, resulting in a recurrence rate of 5.56%. In contrast, the control group experienced five instances of recurrence, yielding a recurrence rate of 13.89%. The recurrence rate

2.6.2 Criteria for efficacy. Refer to the main efficacy evaluation criteria for stomachache in the *Criteria for Diagnosis and Efficacy of Diseases and Syndromes of Traditional Chinese Medicine*; (i) markedly effective: the clinical signs and symptoms or inflammation disappeared, the patient’s mood was stable and pleasant, and gastroscopy showed no abnormality; (ii) effective: the clinical signs and symptoms improved significantly, the patient’s mood was relatively stable, and gastroscopy showed an improvement in inflammation; (iii) ineffective: the clinical signs and symptoms was not improved, the patient’s mood was not improved and may even show a trend toward deterioration, and gastroscopy showed no changes.

2.7 Statistical analysis SPSS 23.0 software was used for data analysis, and the measurement data in line with normal distribution were expressed as the mean ± standard deviation ($\bar{x} \pm s$). A t test was employed for analysis, while the χ^2 test was used for enumeration data. Additionally, Ridit analysis was used for inter-group comparison of grade data. $P<0.05$ was considered statistically significant.

3 Results and analysis

3.1 Therapeutic effects The total effective rate for the treatment group was 88.89%, in contrast to 80.56% for the control group. The curative effect of the treatment group was significantly better than that of the control group ($P<0.05$), as shown in Table 2.

Table 2 Comparison of efficacy between the two groups ($n=36$)

Group	Cure	Remarkable effect	Get better	Not valid	Efficient//%
Treatment	0	21	11	4	88.89 [#]
Control	0	19	12	7	80.56

NOTE Compared with the control group, [#] $P<0.05$.

3.2 TCM syndrome scores of two groups of patients before and after treatment

In comparison to pre-treatment levels, the TCM syndrome scores for both patient groups exhibited a notable reduction after treatment. Furthermore, the extent of this reduction in the treatment group was significantly greater than that observed in the control group ($P<0.05$), as illustrated in Table 3.

of patients in the control group was notably higher than that in the treatment group.

4 Discussion

Chronic superficial gastritis is a prevalent disorder of the digestive system. If left untreated, the condition may progress to atrophic gastritis or potentially develop into gastric cancer^[7]. Traditional

Chinese medicine categorizes chronic superficial gastritis as a condition characterized by fullness and epigastric pain. A prevalent dialectical syndrome associated with this condition is liver-stomach disharmony. Consequently, Chaihu Shugan Powder is frequently employed as a therapeutic intervention^[8]. In the aforementioned formula, Radix Bupleuri can improve food accumulation and alleviate gastrointestinal qi stagnation in patients. Rhizoma Ligustici wallichii has the effect of promoting blood circulation and qi circulation and relieving pain. Rhizoma Cyperi possesses properties that alleviate depression, regulate qi, and relieve pain, while also addressing sensations of fullness and discomfort in the chest, hypochondrium, and epigastrium. Both Fructus Aurantii and Pericarpium citri reticulatae have the effects of regulating qi, alleviating issues in the middle warmer, relieving flatulence, and removing stagnation, thereby improving sensations of fullness and pain caused by food stagnation. The combination of Radix Paeoniae Alba and Radix Glycyrrhizae serves to clear heat and toxins, nourish the blood, soften the liver, and alleviate abdominal distension and pain. The combination of all the medicinal agents serves to eliminate blood stasis and resolve masses, promote blood circulation, alleviate pain, and soothe the liver while promoting the flow of qi^[9–10]. The results of this study showed that the total effective rate for the treatment group was 88.89%, while the control group exhibited a total effective rate of 80.56%. The curative effect of the treatment group was significantly superior to that of the control group. This evidence supports the conclusion that the classical prescription of Chaihu Shugan Powder has a significant effect on alleviating stomachache caused by chronic superficial gastritis, demonstrating a higher total effective rate compared to conventional western medicine treatments.

Studies have shown that the clinical efficacy of Chaihu Shugan Powder is significantly higher than that of omeprazole alone in the treatment of chronic superficial gastritis. This formulation has been shown to significantly reduce the recurrence rate among

patients, thereby warranting its broader application in clinical settings.

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