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Analysis on the Effect and Safety of Baihe Wuyao Xiexin Decoction in Treating Reflux Esophagitis

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Article Information

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ABSTRACT

To analyze the efficacy and safety of Baihe Wu Yao Xiexin Decoction in the treatment of reflux esophagitis. Methods: A total of 80 patients with reflux esophagitis were selected from June 2021 to June 2023. Patients were randomly divided into a observation group, with 40 cases in each group. The control group was treated with conventional western medicine, and the observation group was treated with Baihe Wuyao Xiexin Decoction. The therapeutic effect, TCM symptom score and adverse reactions were compared between the two groups. Results: In terms of treatment effect, the total effective rate of observation group was 97.50% higher than that of control group (80.00%), $P < 0.05$. In terms of TCM symptom score, the observation group had heartburn (0.89 ± 0.20) score, acid reflux (0.79 ± 0.17) score, constipation (0.67 ± 0.14) score, dry mouth and bitter mouth (0.77 ± 0.19) score, emotional distress (0.73 ± 0.13) score, and pain in the two hypochondria (0.84 ± 0.15) score. They were lower than (1.00 ± 0.25) points, (0.90 ± 0.21) points, (0.78 ± 0.17) points, (0.87 ± 0.18) points, (0.83 ± 0.19) points and (0.95 ± 0.23) points in the control group, respectively, $P < 0.05$. In terms of adverse reactions, the total incidence of 5.00% in the observation group was lower than 25.00% in the control group ($P < 0.05$). Conclusion: In the treatment of reflux esophagitis, the use of Baihe Wu Yao Xiexin decoction can improve the total effective rate, alleviate symptoms, reduce adverse reactions, the effect and safety are very ideal.

INTRODUCTION

Among digestive system diseases, reflux esophagitis has a high incidence rate and can cause symptoms such as burning pain behind the sternum, acid reflux, dysphagia, and abdominal distension (Songlin *et al.*, 2022). Western medicine research believes that the occurrence of this disease is mainly caused by factors such as weakened esophageal mucosal barrier function, reduced esophageal acid clearance ability, and weakened anti-acid reflux mechanism. Therefore, gastrointestinal motility drugs, acid-suppressing drugs, and proton pump inhibitors are generally used in treatment, but the overall efficacy is general and the adverse reactions are high (Qin *et al.*, 2020). Traditional Chinese medicine research believes that this type of disease should be classified as esophageal reflux, acid reflux, and noisy, mainly due to improper diet and external evil invading the stomach, which affects the spleen and stomach transportation and transformation functions, causing abnormal visceral and liver and gallbladder function. Therefore, in treatment, the method of harmonizing the stomach and relieving reflux and clearing the liver and purging fire should be adopted (Min, 2022). Based on this, this article selected 80 patients with reflux esophagitis from June 2021 to June 2023, and analyzed the effect and safety of modified Baihe Wuyao Xiexin Decoction in the treatment of reflux esophagitis.

MATERIALS AND METHODS

General Information

80 patients with reflux esophagitis were selected from

June 2021 to June 2023. The patients were randomly divided into a control group and an observation group, with 40 cases in each group. In the control group, the patient gender was 23 males and 17 females, with a minimum age of 24 and a maximum of 68 years old, with an average age of (47.52 ± 3.38) years; in the observation group, the patient gender was 21 males and 19 females, with a minimum age of 25 years old, with a maximum age of 69 years and an average age of (47.66 ± 3.23) years. In the above indicators, there was no significant difference between the two groups, $P > 0.05$. The study was approved by the Medical Ethics Committee.

Inclusion Criteria

All patients meet the diagnostic criteria for reflux esophagitis, all have clear symptoms, and the patients and their families have been informed of the research content and their consent has been obtained.

Exclusion Criteria

Pregnant or lactating female patients, patients with malignant tumors, patients with liver and kidney dysfunction, patients with other severe digestive system diseases, and patients with allergies to the drugs used in the study.

Method

Control Group

The control group received conventional western medicine treatment. The medications were: Rabeprazole

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sodium enteric-coated tablets (Figure 1), manufacturer: Hainan Shuanghe Pharmaceutical, approval number: National Medicine Standard H20133326, oral, 2 times a day, 20 mg each time. Domperidone tablets (Figure 2), manufacturer: Shanxi Baotai Pharmaceutical, approval number: National Medicine Standard H20010245, oral, 3 times a day, 10 mg each time, 30 minutes before meals. Use continuously for 1 month.

day, decocted in water to 300ml, taken twice a day in the morning and evening. On this basis, for patients with liver qi stagnation and emotional depression, add 10g of *Prunella vulgaris* and 10g of *Gentiana*; for patients with obvious heartburn symptoms, add 10g of dandelion and 10g of forsythia; for patients with severe acid reflux, add 15g of calcined corrugated seeds and 15g of calcined cuttlefish bone. Use continuously for 1 month.

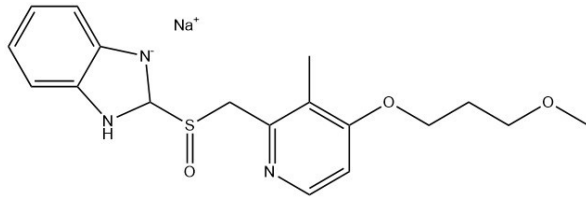


Figure 1: Rabeprazole sodium enteric-coated tablets and chemical formula

Observation Group

The observation group was treated with traditional Chinese medicine Baihe Wuyao Xiexin Decoction. The prescription is: 30g of lily, 15g of licorice, 15g of French pinellia, 10g of jujube, 10g of ginseng, 10g of stir-fried scutellaria, 10g of Sichuan coptis, 10g of lindera, and 6g of dried ginger. See Figure 3 for details. One dose per

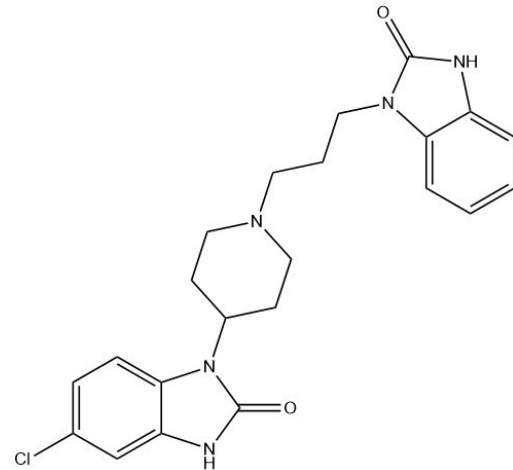


Figure 2: Domperidone tablets and chemical formula



Figure 3: Basic formula of Chinese medicine Baihe Wuyao Xiexin Decoction

Evaluation Indicators

The treatment effects, TCM symptom scores, and adverse reactions of the two groups were compared. The efficacy evaluation criteria are: markedly effective: symptoms basically disappear and all indicators return to normal; effective: symptoms are relieved and all indicators are improved; ineffective: symptoms are not relieved or worsened. The TCM symptom score evaluation standard is: 0 points for no symptoms, 1 point for mild symptoms, 2 points for moderate symptoms, and 3 points for severe symptoms. Indicators include heartburn, acid reflux, constipation, dry mouth and bitter mouth, poor mood, and two sides. Swelling and pain. Adverse reaction indicators include diarrhea, nausea and vomiting, and increased stool.

Statistical Processing

The data were processed using SPSS 20.0 software, and counts and measurement data were expressed in the form of numbers or rates, and mean \pm standard deviation, respectively, and χ^2 and t tests were used respectively, with $P < 0.05$ representing significant differences.

RESULTS AND DISCUSSION

Comparison of the Two Groups in Terms of Treatment Effects

In terms of therapeutic effect, the total effective rate of the observation group was 97.50%, which was higher than that of the control group (80.00%), $P < 0.05$.

Table 1: Comparison of the two groups in terms of treatment effect [n(%)]

Group	Number of cases	Significant effect	Efficient	Invalid	Total effective
Observation Group	40	18 (45.00)	21 (52.50)	1 (2.50)	39 (97.50)
Control group	40	15 (37.50)	17 (42.50)	8 (20.00)	32 (80.00)
χ^2		0.206	0.451	4.507	4.507
P		0.650	0.502	0.034	0.034

Comparison of the Two Groups in Terms of TCM Symptom Scores

In terms of TCM symptom scores, the observation group had lower scores of heartburn (0.89 \pm 0.20), acid reflux (0.79 \pm 0.17), constipation (0.67 \pm 0.14), dry

mouth and bitter taste (0.77 \pm 0.19), bad mood (0.73 \pm 0.13), and flank pain (0.84 \pm 0.15) than the control group (1.00 \pm 0.25), (0.90 \pm 0.21), (0.78 \pm 0.17), (0.87 \pm 0.18), (0.83 \pm 0.19), and (0.95 \pm 0.23), respectively ($P < 0.05$).

Table 2: Comparison of TCM symptom scores between the two groups ($\bar{x} \pm s$)

Group	Number of cases	Heartburn (points)	Acid reflux (points)	Constipation (points)	Dry mouth and bitter taste (points)	Bad mood (points)	Pain and distension in both flanks (points)
Observation Group	40	0.89 \pm 0.20	0.79 \pm 0.17	0.67 \pm 0.14	0.77 \pm 0.19	0.73 \pm 0.13	0.84 \pm 0.15
Control group	40	1.00 \pm 0.25	0.90 \pm 0.21	0.78 \pm 0.17	0.87 \pm 0.18	0.83 \pm 0.19	0.95 \pm 0.23
t		2.173	2.575	3.159	2.416	2.747	2.534
P		0.033	0.012	0.002	0.018	0.007	0.013

Comparison of Adverse Reactions between the Two Groups

In terms of adverse reactions, the total incidence of the

observation group was 5.00%, which was lower than that of the control group (25.00%), $P < 0.05$.

Table 3: Comparison of adverse reactions between the two groups [n(%)]

Group	Number of cases	Diarrhea	Nausea and vomiting	Frequent bowel movements	Overall incidence
Observation Group	40	0 (0.00)	1 (2.50)	1 (2.50)	2 (5.00)
Control group	40	3 (7.50)	4 (10.00)	3 (7.50)	10 (25.00)
χ^2		1.385	0.853	0.263	4.804
P		0.239	0.356	0.608	0.028

Reflux esophagitis is a common chronic disease of the digestive system, which refers to the reflux of gastric or duodenal contents into the esophagus, causing damage to the esophageal mucosa (Wenhong, 2020). In traditional

Chinese medicine, the disease is generally classified into categories such as vomiting and acid vomiting. According to theoretical analysis of traditional Chinese medicine, abnormal esophageal structure or function can easily lead

to abnormal transportation and transformation of the spleen and stomach. The esophagus is the main disease location, and the spleen and stomach are the root cause (Ying, 2021). The common pathogenesis of this type of patients is stagnation of liver and stomach heat, which is usually due to disordered rise and fall of the spleen and stomach and stagnation of liver and stomach due to dryness and heat. Therefore, the water and grain stored in the stomach will flow upward and break through the appetite, causing symptoms such as acid reflux and vomiting (Jian, 2020). Therefore, in the treatment of traditional Chinese medicine, the treatment principles should be adopted to relieve pain, relieve pain, and regulate heat and dryness, so as to achieve the effects of promoting qi, relieving pain, nourishing yin and regulating the stomach. On this basis, the use of modified Lily Wuyao Xiexin Decoction can significantly improve the treatment effect, effectively relieve symptoms, improve perinatal hormone levels, and improve gastrointestinal motility (Jichao, 2021).

Baihe Wuyao Xiexin Decoction is taken from “Shi Fang Ge Kuo”, and the prescription is formed after additions, subtractions and refinements. It is mainly composed of lily, licorice, French half, jujube, ginseng, fried skullcap, Sichuan coptis, Wu Yao, dried ginger and other medicines. Among them, the monarch medicines are Wuyao and Lily. Wuyao is pungent and warm in nature and returns to the lung and spleen meridian. It can warm the kidneys and dispel cold, promote qi and relieve pain. It is suitable for chest and abdominal pain, chest and abdominal pain due to cold and qi stagnation. The effect is good; lily is sweet in nature and belongs to the large intestine meridian. It can nourish the five internal organs, benefit the will, calm the gallbladder, and relieve peace of mind (Zhenlang *et al.*, 2015). French pinellia is made by boiling raw pinellia and licorice together, then soaking it in lime liquid and drying it. It tastes bitter and can reduce nausea and stomach pain. It has a good effect on vomiting caused by various reasons, especially on the stomach. It has a significant effect on stomach qi and vomiting caused by cold, phlegm, etc. (Yu & Xiaogang, 2016). Coptidis Coptidis can relieve vomiting, reduce vomiting, purge fire and detoxify, and clear stomach heat. It is effective in treating vomiting, gastrointestinal damp-heat, and damp-heat internal syndrome. It is compatible with Pinellia ternata to jointly reduce vomiting, clear away heat, and relieve gastric and gastrointestinal diseases. It has the effect of drying dampness and strengthening the spleen, and is effective in treating hiccups and vomiting caused by stomach heat. Stir-fried Scutellaria baicalensis is bitter and cold, enters the lung meridian, has the effects of stopping bleeding, purging fire and detoxifying, clearing away heat and drying dampness. Pinellia ternata is pungent and warm, enters the spleen and stomach meridian, has the effects of eliminating pimples and dissipating stagnation, harmonizing the stomach and stopping vomiting, drying dampness and reducing phlegm. The combination of medicine can treat the lungs and spleen at the same

time, achieving the effects of harmonizing the stomach, reducing qi and stopping vomiting, clearing away heat, drying dampness and reducing phlegm. It has a significant effect on coughs with yellow and thick phlegm caused by lung qi ascending and phlegm-heat blocking the lungs (Min, 2022). It is effective for loss of appetite, nausea and vomiting, and chest and diaphragm fullness caused by gastric disharmony and phlegm-heat combination. Dried ginger can warm the lungs and resolve heat, restore yang and unblock the meridians, warm the body and dispel cold, and has significant effects on hiccups and vomiting. These drugs are ministerial drugs, which can promote the effect of monarch drugs, achieve the effects of stopping vomiting, promoting qi and relieving pain. At the same time, they can regulate the abnormality of gastric qi mechanism, promote the orderly rise and fall of the middle burner, and nourish the spleen and stomach (Dongmei, *et al.*, 2021). Using jujube and ginseng as adjuvants can greatly replenish vitality. Ginseng is sweet and slightly warm. It can restore the pulse and strengthen the pulse in patients with severe vomiting and diarrhea or long-term illness. When combined with dry ginger, the middle qi can be smooth, flowing but not blocked, and tonic but able to move. Tonifying but not stagnant, what are the uses of these two medicines? They have the effect of warming the middle burner and replenishing the spleen and stomach. They are effective in treating vomiting, diarrhea, and cold and painful epigastric pain caused by spleen and stomach deficiency. Jujube can replenish the spleen and qi, which is more suitable for those with weak spleen. Combined with ginseng, it can strengthen the qi-replenishing effect. Licorice is an herbal medicine that can replenish the heart, relieve pain and relieve pain, and replenish the heart and spleen. When combined with dried ginger, it can relieve pain, relieve pain, warm the heart and dispel cold. It is commonly used in the treatment of epigastric pain. Licorice can harmonize various medicines, purge and lower qi, disperse and circulate qi, regulate qi mechanism, promote the orderly rise and fall of qi mechanism in the middle burner, make qi and blood metabolize actively, and then promote the return of viscera function to normal. The combination of the above drugs can alleviate the patient's symptoms, improve his condition, and achieve a very ideal prognosis.

CONCLUSION

In the treatment of reflux esophagitis, the treatment regimen of modified Lily and Wuyao Xiexin Decoction can improve the overall effective rate of treatment, significantly relieve symptoms, improve the levels of gastrointestinal hormones and inflammatory factors, and reduce adverse reactions. The effect and safety are very ideal.

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