

A Randomized Controlled Trial of Buzhong Yiqi Decoction Combined with Abdominal Massage in the Treatment of Constipation Due to Spleen Deficiency and Qi Depression

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Abstract: *Objective:* To analyze the effect of Buzhong Yiqi Decoction combined with abdominal massage in the treatment of constipation due to spleen deficiency and qi depression. *Methods:* From July 2024 to June 2025, 82 patients with constipation due to spleen deficiency and qi depression were selected for data research in our hospital. They were divided into groups using the random number table method, with 41 cases in each group. The experimental group was treated with Buzhong Yiqi Decoction combined with abdominal massage, and the control group was treated with abdominal massage. The data differences between the groups were compared. *Results:* Compared with the control group, the TCM syndrome scores of the experimental group were significantly lower after treatment, the total effective rate of treatment was significantly higher, the recurrence rate was significantly lower, the number of spontaneous complete defecation times per week after treatment was significantly more, the CCS score was significantly lower after treatment, and the BSFS score was significantly higher after treatment, $P < 0.05$. Comparing the TCM syndrome scores, spontaneous complete defecation times per week, CCS scores, and BSFS scores before treatment between the two groups, $P > 0.05$. *Conclusion:* The application of Buzhong Yiqi Decoction combined with abdominal massage to treat constipation due to spleen deficiency and qi depression has an ideal effect.

Keywords: Buzhong Yiqi Decoction; Abdominal massage; Spleen deficiency and qi depression type; Constipation; Randomized control

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1. Introduction

Constipation is a common clinical symptom of patients with reduced defecation frequency, dry and hard stools, and labored defecation. Long-term disease may lead to complications such as anal fissures and hemorrhoids, and a reduced quality of life. During the study of constipation in traditional Chinese medicine, syndrome differentiation was conducted. The most commonly witnessed type is spleen deficiency and qi depression. The causes are improper diet, overwork, long-term illness, and lack of nutrition. Patients have a deficiency of spleen, weakness in lifting, and loss of large intestine conduction^[1]. The main symptoms are frequent bowel movements, but weak defecation, fatigue after defecation, and heavy epigastric

weight. Currently, symptomatic intervention methods are mainly used in clinical treatment for patients with constipation caused by spleen deficiency and qi depression, such as abdominal massage. The effect is to promote intestinal peristalsis and improve defecation function. However, clinical practice shows^[2] that the effect of a single treatment is limited and fails to fundamentally replenish the patient's spleen and correct the pathogenesis of qi depression. Therefore, it is proposed to treat patients with Buzhong Yiqi Decoction. Buzhong Yiqi Decoction is derived from *Treatise on the Differentiation of Internal and External Injuries*. It has the functions of tonifying the middle and replenishing qi, raising yang, and lifting depression^[3]. It can significantly improve the core pathogenesis of spleen deficiency and qi depression syndrome. Based on this, this study selected 82 patients to analyze the effect of Buzhong Yiqi Decoction combined with abdominal massage in the treatment of constipation due to spleen deficiency and qi depression.

2. Materials and methods

2.1. Information

From July 2024 to June 2025, 82 patients with spleen deficiency and qi depression constipation were selected for data research in our hospital. They were divided into groups using a random number table, with 41 cases in each group. The experimental group was 20/21 male and female, aged 47–82 (63.69 ± 10.28) years old, and the control group was 18/23 male and female, aged 46–80 (63.64 ± 10.24) years old. Comparing the two sets of data, $P > 0.05$ was obtained.

Inclusion criteria: Consistent with the syndrome differentiation criteria of spleen deficiency and qi trap constipation; disease duration of 3 months or more, spontaneous complete defecation frequency of 2 times or less per week; no disease-related treatment in the past month; informed consent, voluntary participation.

Exclusion criteria: Constipation combined with other syndromes; organic intestinal diseases or serious diseases of important organs such as heart, liver, kidney, brain, etc.; allergic to drug ingredients or unable to cooperate with treatment; pregnant, lactating, or suffering from mental illness or cognitive impairment.

2.2. Methods

The control group was treated with abdominal massage, with the Zhongwan, Shenque, Tianshu, Guanyuan, and Zusanli points exposed while lying on their backs, and massaged at 8 a.m. At this time, the large intestine meridian and stomach meridian were full of qi and blood, and the patients were massaged for 30 minutes and treated for 14 days.

The experimental group was treated with Buzhong Yiqi Decoction combined with abdominal massage. On the basis of the treatment in the control group, the following were added: 18g of *Astragalus membranaceus*, 18g of *Atractylodes macrocephala*, 18g of *Codonopsis pilosula*, 13g of *Citrus aurantium*, 13g of *Angelica sinensis*, 13g hemp seeds, 13g almonds, 13g *Cistanche*, 13g *Anemarrhena*, 9g tangerine peel, 9g betel nut, 4g cohosh, 5g licorice, add tangerine peel to 14g to reduce abdominal distension, magnolia bark 9g, add 5g cinnamon for nocturia, add 18g cyperus rotundus and 13g bergamot for depression, soak the medicinal materials in an appropriate amount of water for 4 hours, boil over high heat, and continue to decoct over low heat for 30 minutes. After the first decoction, filter out the medicinal liquid, boil it 2 more times in the same way, mix the resulting medicinal liquid 3 times, and concentrate to 280ml over low heat. Use the medicine once in the morning and evening (a total of 1 dose), and treat on an empty stomach for a total of 14 days.

2.3. Observation indicators

- (1) Compare the TCM syndrome scores of the two groups. Major symptoms are scored from 0 to 6, and minor symptoms are scored from 0 to 3.
- (2) Compare the total effective rate of treatment between the two groups. Recovery: Traditional Chinese medicine syndrome disappears completely, normal defecation function returns, spontaneous complete defecation occurs 3 times or more per week, stool properties are normal, and no labored defecation occurs. Significantly effective: Traditional Chinese medicine syndromes are significantly improved, defecation function is significantly improved, spontaneous

complete defecation occurs 2 times or more per week, and defecation effort is significantly reduced. Effective: Traditional Chinese medicine syndromes are relieved, defecation function is improved, the number of spontaneous complete defecations per week is increased compared with before treatment, and defecation effort is reduced. Invalid: other situations. Total efficiency = 100% – inefficiency.

- (3) Compare the recurrence rates between the two groups.
- (4) Compare the number of spontaneous complete bowel movements per week, CCS scores, and BSFS scores between the two groups. Evaluate using the Constipation Clinical Symptom Rating Scale and the Bristol Stool Character Rating Scale.

2.4. Statistics

SPSS 28.0 software was used for data analysis. Counting and measurement data were expressed in the form of rate (%) and mean \pm standard deviation (SD). χ^2 and t -tests were carried out respectively. $P < 0.05$ was statistically significant.

3. Results

Compared with the control group, the TCM syndrome scores of the experimental group were significantly lower after treatment, the total effective rate of treatment was significantly higher, the recurrence rate was significantly lower, the number of spontaneous complete defecations per week after treatment was significantly more, the CCS score was significantly lower after treatment, and the BSFS score was significantly higher after treatment, $P < 0.05$; Comparing the TCM syndrome scores, spontaneous complete defecation times per week, CCS scores, and BSFS scores before treatment between the two groups, $P > 0.05$. See **Tables 1 to 4**.

Table 1. Comparison of TCM syndrome scores (points) between the two groups

Group	Struggling to defecate		Abdominal distension with dull pain		Weakness after defecation		Loss of appetite		Tired of limbs and lazy to talk	
	Before treatment	After treatment	Before treatment	After treatment	Before treatment	After treatment	Before treatment	After treatment	Before treatment	After treatment
Experimental group ($n = 41$)	4.66 \pm 1.24	1.91 \pm 1.11	4.08 \pm 1.17	1.55 \pm 1.12	1.72 \pm 0.41	0.85 \pm 0.38	1.77 \pm 0.48	0.68 \pm 0.44	1.88 \pm 0.38	0.52 \pm 0.33
Control group ($n = 41$)	4.65 \pm 1.23	2.86 \pm 1.22	4.12 \pm 1.22	2.81 \pm 1.11	1.75 \pm 0.44	1.25 \pm 0.42	1.78 \pm 0.44	1.24 \pm 0.45	1.90 \pm 0.42	1.01 \pm 0.35
t	0.0367	3.6880	0.1515	5.1164	0.3194	4.5220	0.0983	5.6974	0.2261	6.5224
P	> 0.05	< 0.05	> 0.05	< 0.05	> 0.05	< 0.05	> 0.05	< 0.05	> 0.05	< 0.05

Table 2. Comparison of the total effective rate of treatment between the two groups (%)

Group	Recover	Significantly effective	Effective	Invalid	Total efficiency
Experimental group ($n = 41$)	10(24.39)	15(36.59)	12(29.27)	4(9.76)	90.24
Control group ($n = 41$)	2(4.88)	10(24.39)	16(39.02)	13(31.71)	68.29
χ^2	-	-	-	-	6.0109
P	-	-	-	-	< 0.05

Table 3. Comparison of recurrence rates between the two groups (%)

Group	Recurrence rate
Experimental group (n = 41)	1(2.44)
Control group (n = 41)	7(17.07)
χ^2	4.9865
P	< 0.05

Table 4. Comparison of the number of spontaneous complete bowel movements per week, CCS scores, and BSFS scores between the two groups

Group	Number of spontaneous complete bowel movements per week (times/week)		CCS score (points)		BSFS score (points)	
	Before treatment	After treatment	Before treatment	After treatment	Before treatment	After treatment
Experimental group (n = 41)	1.31 ± 0.56	3.27 ± 1.05	16.48 ± 4.22	8.51 ± 2.88	2.02 ± 0.54	4.33 ± 0.91
Control group (n = 41)	1.34 ± 0.62	2.46 ± 0.88	16.88 ± 4.51	10.55 ± 3.26	2.04 ± 0.45	3.61 ± 0.78
t	0.2299	3.7858	0.4147	3.0029	0.1822	3.8466
P	> 0.05	< 0.05	> 0.05	< 0.05	> 0.05	< 0.05

4. Discussion

Prolonged course and repeated episodes of constipation in patients will significantly reduce the quality of daily life and induce complications, so clinical attention is paid to it. Traditional Chinese medicine has a long history of understanding constipation, among which spleen deficiency and qi trapping are common, especially among the elderly, postpartum women, and people with long-term fatigue^[4]. From the perspective of traditional Chinese medicine, constipation caused by spleen deficiency and qi depression is analyzed. The pathogenesis is spleen deficiency and inability to lift. After the disease, the patient develops inability to defecate, fatigue after defecation, heavy epigastric weight, loss of appetite, etc. Since simple physical intervention and western medicine symptomatic treatment are difficult to correct the fundamental pathogenesis of spleen deficiency and qi depression, the efficacy is unstable and can easily lead to disease recurrence. Therefore, this study proposes the application of Buzhong Yiqi Decoction combined with abdominal massage to provide a reference for clinical optimization of treatment plans for similar patients.

The results of this study show that the TCM syndrome scores of the experimental group after treatment were significantly lower than those of the control group. The reasons for the analysis of the results are: abdominal massage was applied to the patients, key points on the spleen, stomach, and large intestine meridians were selected^[5], and physical stimulation was used to dredge the patients' meridians, reconcile qi and blood, and promote the gastrointestinal function of the patients. Peristalsis is significantly improved, and the patient's intestinal conduction function can be directly improved^[6]. However, this therapy can only treat the symptoms, so the patient needs to be treated with Buzhong Yiqi Decoction. The royal medicine *Astragalus* root and *Codonopsis pilosula* are effective in tonifying the qi in the spleen and stomach. *Atractylodes macrocephala* can help patients strengthen the spleen and remove dampness. To aid transportation and defecation, the clinical effects of *Citrus aurantium* and dried tangerine peel are to regulate qi and stagnation, which can help patients eliminate epigastric distension and fullness. Angelica sinensis nourishes blood and moisturizes the intestines. Hemp seeds and almonds can promote moisturizing and laxative effects for patients^[7]. *Cistanche deserticola* has the effect of warming yang and replenishing essence, moistening the intestines and laxative. The effect is to clear away heat and nourish yin, the effect of betel nut is to promote qi and guide stagnation, cohosh can help patients raise hair and clear yang, lift qi and relieve phlegm, and licorice can harmonize all the medicines. The overall effect of the prescription is to replenish

qi, raise yang and lift qi, moisturize the intestines, and relieve constipation. It can effectively solve the patient's problem of spleen qi stagnation from the pathogenesis level^[8]. Coupled with the physical stimulating effect of abdominal massage, it can take into account both the symptoms and root causes and treat both internal and external diseases, so that the patient's various TCM syndromes can be comprehensively improved.

The results of this study show that the total effective rate of the test group is 90.24%, which is significantly higher than that of the control group. The reason for the analysis of the results is that acupoint stimulation and abdominal massage can excite the patient's intestinal sympathetic nerves, accelerate the frequency of intestinal peristalsis, promote the patient's discharge of feces, and alleviate the symptoms of mild patients. If the patient has a long course of disease and significant symptoms of spleen deficiency, local intestinal function can be improved, but it cannot effectively restore the patient's spleen and stomach transportation and lifting functions to normal. The effect is not ideal and relapse is easy. Taking Buzhong Yiqi Decoction orally for the patient can have an effect on the patient's internal organs, correct the patient's pathological state of spleen deficiency and qi depression, restore the driving and dominating effect of the spleen and stomach on the large intestine, and effectively restore the patient's defecation function from the root cause. The two are combined to treat the patient, using physical therapy to quickly relieve symptoms and using traditional Chinese medicine decoction to consolidate the root cause. The speed of onset of action and long-term efficacy are both taken into account, and the overall treatment effect of the patient is effectively improved.

The results of this study show that the recurrence rate of the experimental group is 2.44%, which is much lower than that of the control group. The reason for the analysis of the results is: the patient has a recurrence of constipation because the pathogenesis has not been eliminated and the function of the organs has not been restored. Abdominal massage cannot improve the patient's fundamental problem of spleen deficiency. The patient relies on external stimulation to promote intestinal peristalsis. After the stimulation is stopped, it is easy to return to the pathological state. The patient is treated with Buzhong Yiqi Decoction, which enhances the patient's spleen and stomach function through long-term conditioning, improves the body's righteousness, and helps the patient restore normal intestinal conduction function. Even if the patient stops treatment, he can maintain a stable defecation state and reduce the risk of recurrence. At the same time, this study adds or subtracts prescriptions based on the patient's accompanying symptoms and provides patients with individualized treatment, which can further enhance the efficacy and reduce the recurrence of the patient's condition.

The results of this study show that compared with the control group, the number of spontaneous complete defecations per week in the experimental group after treatment was significantly increased, the CCS score was significantly reduced, and the BSFS score was significantly increased. The reason for the analysis of the results is that the CCS score can reflect the severity of the patient's clinical symptoms of constipation, and the BSFS score reflects the patient's stool characteristics. The joint evaluation of the two indicators can objectively reflect the improvement of the patient's defecation function. Abdominal massage for patients can improve the patient's stool properties and increase the frequency of defecation, but it cannot fundamentally change the patient's intestinal motility weakness caused by spleen deficiency and qi depression. Treating the patient with Buzhong Yiqi Decoction can replenish the middle qi and strengthen the patient's intestinal motility. Combined with the use of warm and moist laxative drugs, patients can return to normal stool properties, steadily increase the frequency of spontaneous defecation, and significantly reduce CCS scores. It is confirmed that combined treatment can significantly improve core indicators such as patient frequency of defecation, stool properties, and difficulty in defecation.

5. Conclusion

In summary, the application of Buzhong Yiqi Decoction combined with abdominal massage to treat constipation due to spleen deficiency and qi depression has ideal effects. After treatment, the TCM syndrome score is significantly lower, the total treatment efficiency is significantly higher, the recurrence rate is significantly lower, the number of spontaneous complete defecations per week is significantly higher after treatment, the CCS score is significantly lower after treatment,

and the BSFS score is significantly higher after treatment, which is worthy of clinical promotion and use.

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Disclosure statement

The author declares no conflict of interest.

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