

# Observation on the Effect of Clinical Intervention of Traditional Chinese Medicine Acupoint Patching on Promoting Defecation in Patients with Intestinal Obstruction Who are Bedridden for a Long Time

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**Abstract:** *Objective:* To observe the effect of traditional Chinese medicine acupoint patching on clinical intervention in promoting defecation in patients with intestinal obstruction who are bedridden for a long time. *Methods:* 82 patients with intestinal obstruction who were bedridden for a long time in our hospital (from August 2023 to December 2024) were selected and randomly divided into an observation group (41 cases) with traditional Chinese medicine acupoint patch intervention and a control group (41 cases) with conventional intervention. *Results:* Compared with the control group, the observation group had shorter gastrointestinal function recovery time, lower clinical symptom scores, higher comfort scores, and higher quality of life scores,  $P < 0.05$ . *Conclusion:* Giving Chinese medicine acupoint patches to long-term bedridden patients with intestinal obstruction can promote the recovery of gastrointestinal function, reduce clinical symptoms, improve comfort and quality of life, and is worth learning from.

**Keywords:** Traditional Chinese medicine acupoint patch; intestinal obstruction; long-term bed rest; defecation

**Online publication:** December 26, 2025

## 1. Introduction

Intestinal obstruction is a digestive system emergency with a high incidence. After the onset of the disease, the patient's condition is very serious and requires him to stay in bed for a long time. For patients with intestinal obstruction who are bedridden for a long time, their physical activities are greatly restricted, which will significantly weaken the gastrointestinal motility function and further prolong the retention time of food in the intestine. This situation will cause bacterial overgrowth in the intestine and produce a large amount of toxins. It can also easily cause various complications, such as malnutrition, water and electrolyte imbalance, etc. <sup>[1]</sup>. Staying in bed for a long time will also slow down blood circulation, especially in the veins of the lower limbs, further increasing the patient's risk of thrombosis. Moreover, patients who remain in the same posture for a long time can easily cause pressure ulcers and other problems, which will have a great impact on their physical recovery and quality of life <sup>[2]</sup>. Therefore, we must pay attention to the recovery of

gastrointestinal function in patients with long-term bed-ridden intestinal obstruction to help patients improve their physical health and quality of life. For patients with intestinal obstruction, promoting defecation is a very important content, and Chinese medicine already has a deep understanding of this, and effective Chinese medicine intervention measures can be taken to improve the patient's condition, such as Chinese medicine acupoint patches<sup>[3]</sup>. This study selected 82 patients with intestinal obstruction who were bedridden for a long time in our hospital to observe the effect of the application of traditional Chinese medicine acupoint patches.

## 2. Materials and methods

### 2.1. General information

82 patients with long-term intestinal obstruction who were bedridden in our hospital from August 2023 to December 2024 were selected and randomly divided into 2 groups. There were 41 patients in the control group, including 23 males and 18 females, aged 52 to 69 ( $61.47 \pm 2.59$ ) years old, with intestinal obstruction time of 0.4 to 4 ( $2.11 \pm 0.43$ ) days. In the observation group, there were 41 patients, 22 males and 19 females, aged from 51 to 68 ( $61.52 \pm 2.62$ ) years old, with intestinal obstruction time of 0.5 to 4 ( $2.18 \pm 0.56$ ) days. Comparison of general data,  $P > 0.05$ .

Inclusion criteria: good state of consciousness; no history of drug allergy; high degree of cooperation; complete medical records.

Exclusion criteria: combined with other intestinal diseases; severe conditions such as shock; mechanical obstruction such as intussusception and volvulus; intestinal obstruction caused by organic lesions such as intestinal tumors; mental illness.

### 2.2. Method

Control group: fasting, gastrointestinal decompression, gastrointestinal decompression is stopped when symptoms are relieved, and liquid diet can be provided. Actively replenish water and electrolytes, and use drugs for treatment. Encourage patients to perform appropriate activities in bed to promote bowel movement.

Observation group: Based on the above, make a traditional Chinese medicine acupoint patch, which contains 12g of *Magnolia officinalis*, 12g of rhubarb, 9g of Glauber's salt, and 9g of *Citrus aurantium*. The above medicines need to be crushed and then ground into fine powder. Then use honey to mix the above medicine powders evenly and make them into round medicine cakes with a diameter of 3 cm. Place the prepared medicine cake in the center of the tape, fix the medicine cake through the tape, and then apply it on the corresponding acupoints. The acupuncture points selected during the application process include bilateral Tianshu, Dachangshu, Shangjuxu and Zusanli. The application frequency is once a day, each time lasts 3 hours, and the entire intervention process lasts for 7 days.

### 2.3. Observation indicators

(1) Gastrointestinal function recovery time; (2) Clinical symptoms: 0 to 3 points, 0 means none, 3 means extremely severe; (3) Comfort: Simplified Comfort Scale (GCQ); (4) Quality of life: Comprehensive Quality of Life Questionnaire (GQOL-74).

### 2.4. Statistical methods

SPSS26.0 software statistical data, measurement data expressed: ( $\bar{x} \pm s$ ), t test, count data expressed: n, %,  $\chi^2$  test,  $P < 0.05$ , the difference is statistically significant.

## 3. Results

### 3.1. Comparison of gastrointestinal function recovery time

The observation group was less than the control group,  $P < 0.05$ , Table 1.

**Table 1.** Comparison of gastrointestinal function recovery time (h)

Group	Bowel sounds recovery time	First exhaust time	First bowel movement time
control group	23.82±3.49	35.48±4.23	58.73±4.65
observation group	16.34±3.27	24.58±4.75	40.82±3.76
<i>t</i>	10.015	10.973	19.177
<i>P</i>	0.000	0.000	0.000

### 3.2. Comparison of clinical symptoms

After intervention, the observation group was lower than the control group,  $P < 0.05$ , Table 2.

**Table 2.** Comparison of clinical symptoms (point)

Group	Abdominal pain		Abdominal bloating		Nausea and vomiting		Bitter mouth and dry mouth	
	Before intervention	After intervention	Before intervention	After intervention	Before intervention	After intervention	Before intervention	After intervention
Control group (n=41)	1.82±0.63	0.72±0.36	1.67±0.54	0.66±0.25	1.67±0.55	0.69±0.23	1.96±0.63	0.73±0.27
Observation group (n=41)	1.89±0.68	0.46±0.18	1.63±0.48	0.50±0.17	1.70±0.51	0.42±0.12	1.93±0.58	0.54±0.14
<i>t</i>	0.484	4.136	0.355	3.389	0.256	6.664	0.224	4.000
<i>P</i>	0.630	0.000	0.724	0.001	0.789	0.000	0.823	0.000

### 3.3. Comfort comparison

After intervention, the observation group was higher than the control group,  $P < 0.05$ , Table 3.

**Table 3.** Comfort comparison (point)

Group	Social environment		Physiology		Culture		Psychological	
	Before intervention	After intervention	Before intervention	After intervention	Before intervention	After intervention	Before intervention	After intervention
Control group (n=41)	16.67±2.64	19.62±1.83	19.73±2.59	24.62±3.62	10.72±1.48	12.12±1.58	23.52±3.84	27.37±2.62
Observation group (n=41)	16.95±2.73	23.74±2.95	19.63±2.54	29.65±3.72	10.65±1.76	14.33±1.47	25.65±3.62	33.93±2.64
<i>t</i>	0.472	7.599	0.177	6.205	0.195	6.557	2.584	11.293
<i>P</i>	0.638	0.000	0.860	0.000	0.846	0.000	0.012	0.000

### 3.4. Comparison of quality of life

After intervention, the observation group was higher than the control group,  $P < 0.05$ , Table 4.

**Table 4.** Comparison of quality of life (point)

Group	Material life		Social function		Psychological function		Physical function	
	Before intervention	After intervention	Before intervention	After intervention	Before intervention	After intervention	Before intervention	After intervention
Control group (n=41)	73.68±3.45	76.93±3.34	72.76±2.97	76.28±3.93	73.73±2.94	76.83±2.75	71.82±2.61	75.84±1.52
Observation group (n=41)	73.47±3.54	80.57±3.28	72.63±2.82	79.74±4.52	73.33±2.54	81.69±3.84	71.85±2.63	80.84±2.52
<i>t</i>	0.272	4.979	0.203	3.699	0.659	6.589	0.052	10.879
<i>P</i>	0.786	0.000	0.840	0.000	0.513	0.000	0.959	0.000

## 4. Discussions

When patients with intestinal obstruction are bedridden for a long time, their activity level is significantly reduced, which further weakens gastrointestinal motility, causing food digestion and excretion to become slow and difficult. Moreover, changes in pressure in the patient's intestines will affect the blood circulation of the intestinal mucosa, damage the mucosa, and be detrimental to the effective absorption of nutrients. For patients, due to the impact of the disease and restrictions on their own activities, they are also prone to various psychological problems, such as anxiety and other negative emotions. The above situations will have an impact on physiological functions, leading to a vicious cycle<sup>[4]</sup>. Therefore, for patients with intestinal obstruction who are bedridden for a long time, we must pay attention to the improvement of their condition and take effective intervention measures to help patients better improve their condition, reduce the impact of adverse factors, and promote physical recovery. Traditional Chinese medicine believes that intestinal obstruction belongs to the intestinal knot, etc., and the occurrence of this condition is closely related to improper diet, invasion of external evils, emotional disorders, etc. In the intervention process of traditional Chinese medicine, it attaches great importance to the overall concept and syndrome differentiation and treatment, and believes that the condition can be effectively improved through various methods, such as regulating qi and blood, dredging meridians, restoring intestinal qi function, etc. Among them, traditional Chinese medicine acupoint stickers have attracted widespread attention<sup>[5]</sup>.

Traditional Chinese medicine acupoint patching is a type of traditional Chinese medicine therapy. This method effectively combines traditional Chinese medicine with acupoint stimulation. The intervention process is based on traditional Chinese medicine theory and can take into account the patient's physical characteristics and condition to combine the corresponding traditional Chinese medicine. At the same time, it is made into a specific dosage form, such as medicine cakes, etc., and is applied to specific acupoints. After the acupuncture points are continuously stimulated by the drug and the drug is transdermally absorbed, significant effects can be exerted. Moreover, traditional Chinese medicine acupoint patching is easy to operate and does not require complicated equipment and conditions. It is a non-invasive therapy with high patient acceptance. It can also provide patients with personalized formulas and acupoint selection during specific implementation, achieving precise treatment to a large extent<sup>[6]</sup>. In the results of this study, the gastrointestinal function recovery time of the observation group was shorter than that of the control group, the clinical symptom score was lower than that of the control group, the comfort score was higher than that of the control group, and the quality of life score was higher than that of the control group,  $P < 0.05$ , indicating that the overall intervention effect of traditional Chinese medicine acupoint stickers is significant and is conducive to the active recovery of patients' physical and mental status. Traditional Chinese medicine acupoint patches are composed of a variety of medicinal ingredients, which jointly improve intestinal function in patients with intestinal obstruction. Rhubarb is an important medicine for relieving constipation. It has the functions of laxative, clearing away heat and purging fire. Patients with intestinal obstruction often have problems

with slowed intestinal peristalsis and long-term fecal stagnation. During the application process, rhubarb can directly stimulate the intestinal mucosa, enhance intestinal peristalsis, and facilitate the rapid discharge of feces from the body. It can relieve patients' discomfort symptoms such as abdominal distension and abdominal pain caused by constipation and promote intestinal recovery<sup>[7]</sup>. *Magnolia officinalis* can promote qi, eliminate accumulation, and remove dampness and congestion. Patients with intestinal obstruction often experience stagnation due to poor gas flow in the intestine, resulting in symptoms of abdominal fullness. *Magnolia officinalis* can dredge intestinal Qi, eliminate stagnation, improve intestinal stasis, and facilitate the smoother circulation of intestinal Qi and blood, relieve patients' abdominal distension, and improve abdominal comfort. *Citrus aurantium* can break Qi, eliminate accumulation, resolve phlegm and disperse pimples. The application of this drug is conducive to the enhancement of intestinal peristalsis. It plays a positive role in solving the problems of patients with insufficient intestinal peristalsis and difficulty in advancing the contents, promotes the smooth descent of intestinal contents, and helps restore normal intestinal function. Glauber's salt has the effect of laxative, moisturizing and softening hardness. Through analysis of patients with intestinal obstruction, it is believed that they have dry and hard stools that are difficult to pass. The application of Glauber's salt can absorb water in the intestines, soften dry and hard stools, make it easier to pass stools, and alleviate the pain of defecation for patients. In the process of compatibility and application of the above drugs, a more comprehensive drug effect can be formed, which can relieve diarrhea, regulate qi and reduce swelling, so that the patient's intestinal function can be fundamentally improved and the body's recovery speed can be accelerated. During patient intervention, the selection of acupoints is also very important. Bilateral Tianshu points have the function of regulating the stomach and intestines, promoting qi and blood circulation, and can directly regulate the patient's intestinal function. By stimulating the corresponding acupoints, it is conducive to stimulating the qi of the meridians, promoting intestinal peristalsis, improving intestinal digestion and absorption capacity, and improving related problems caused by intestinal obstruction, such as difficulty in defecation. Bilateral Dachangshu has a positive effect on improving intestinal qi and blood circulation<sup>[8]</sup>. When patients with intestinal obstruction are bedridden for a long time, intestinal qi and blood will not flow smoothly. Bilateral large intestine shu stimulation will help clear the qi and blood of the large intestine meridians, allowing the qi and blood in the intestine to move normally. It can also provide the intestines with sufficient nutrition and motivation, thereby promoting defecation and alleviating disease symptoms. By stimulating the upper giant points on both sides, it is beneficial to enhance the peristalsis and conduction ability of the large intestine, speed up the discharge of intestinal contents, and effectively improve the patient's defecation condition. Bilateral Zusanli has many functions such as regulating qi, strengthening the spleen and stomach, unblocking meridians and guiding stagnation. By stimulating this acupoint, it can regulate the function of the spleen and stomach, further improve the ability of the spleen and stomach to transport and transform, and also have an indirect impact on intestinal peristalsis and digestive function. Moreover, stimulation of this acupoint can also unblock the gas flow in the intestines, promote defecation, and relieve symptoms of intestinal obstruction.

Therefore, the use of traditional Chinese medicine acupoint patches in patients with intestinal obstruction who are bedridden for a long time can promote the recovery of gastrointestinal function, reduce clinical symptoms, promote comfort and improve the quality of life, and has promotion value.

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## Disclosure statement

The author declares no conflict of interest.

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