

## Digital Acupressure Combined with Moxibustion for Prevention of Postoperative Urinary Retention after Mixed Hemorrhoid Surgery: A Clinical Observation

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### Abstract

**Objective** To investigate the clinical efficacy of digital acupressure combined with moxibustion in preventing postoperative urinary retention in patients with mixed hemorrhoids. **Methods** Ninety-eight patients with mixed hemorrhoids hospitalized in the Department of Colorectal Surgery, First Affiliated Hospital of Hunan University of Chinese Medicine from June 2022 to June 2023 were selected and randomly divided into a treatment group and a control group, with 49 cases in each group. The control group received conventional postoperative treatment and nursing care, while the observation group received intervention with digital acupressure combined with moxibustion. Comparisons were made between the two groups regarding time to first postoperative urination, duration of first urination, post-void residual urine volume after first urination, urination success rate, and incidence of postoperative urinary retention. **Results** The observation group exhibited significantly shorter time to first postoperative urination, shorter duration of first urination, and less post-void residual urine volume after first urination compared with the control group ( $P < 0.05$ ). The urination success rate was higher and the incidence of urinary retention was lower in the observation group than in the control group ( $P < 0.05$ ). **Conclusion** Digital acupressure combined with moxibustion demonstrates significant efficacy in preventing postoperative urinary retention in mixed hemorrhoid patients, can substantially shorten both the time to first urination and urination duration, markedly reduce post-void residual urine volume, holds considerable clinical value, and is worthy of promotion.

## Full Text

# Clinical Observation on the Preventive Effect of Finger Acupoint Pressure Combined with Moxibustion on Postoperative Urinary Retention After Mixed Hemorrhoid Surgery

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## Abstract

**Objective:** To investigate the clinical effect of finger acupoint pressure combined with moxibustion in preventing urinary retention after mixed hemorrhoid surgery.

**Methods:** A total of 98 patients with mixed hemorrhoids hospitalized in the anorectal department of the First Affiliated Hospital of Hunan University of Chinese Medicine from June 2022 to June 2023 were randomly divided into a treatment group and a control group, with 49 cases in each group. The control group received routine postoperative treatment and nursing care, while the observation group received intervention with finger acupoint pressure combined with moxibustion. The first postoperative urination time, duration of first urination, post-void residual urine volume, urination success rate, and incidence of postoperative urinary retention were compared between the two groups.

**Results:** The observation group showed significantly shorter first urination time, shorter duration of first urination, and less post-void residual urine volume compared with the control group ( $P < 0.05$ ). The urination success rate was higher and the urinary retention incidence was lower in the observation group ( $P < 0.05$ ).

**Conclusion:** Finger acupoint pressure combined with moxibustion demonstrates significant efficacy in preventing postoperative urinary retention after mixed hemorrhoid surgery. It can markedly shorten the first urination time and duration, substantially reduce post-void residual urine volume, and holds considerable therapeutic value, warranting clinical promotion.

**Keywords:** Finger acupoint pressure; Moxibustion; Mixed hemorrhoids; Postoperative urinary retention; Clinical efficacy

## Introduction

Epidemiological surveys indicate that hemorrhoids account for 87.25% of all anorectal diseases [1]. Surgical intervention is commonly employed in clinical practice; however, intraoperative traction and compression readily damage the anorectal region and adjacent tissues, causing local edema and pain. Addition-

ally, post-anesthesia detrusor muscle weakness can trigger urinary retention, severely impacting postoperative recovery outcomes and patient satisfaction [2]. Therefore, implementing active and effective interventions to prevent postoperative urinary retention holds significant importance for patient rehabilitation following mixed hemorrhoid surgery.

## 1. Materials and Methods

**1.1 General Information** Ninety-eight patients with mixed hemorrhoids hospitalized in the anorectal department of the First Affiliated Hospital of Hunan University of Chinese Medicine from June 2022 to June 2023 were selected and randomly divided into a treatment group and a control group, with 49 cases in each group.

The control group comprised 29 male and 20 female patients, aged 25-63 years with a mean age of  $(44.9 \pm 3.3)$  years, and disease duration ranging from 1–3 years with a mean of  $(2.4 \pm 0.2)$  years. The observation group included 28 male and 21 female patients, aged 24–65 years with a mean age of  $(44.4 \pm 3.6)$  years, and disease duration ranging from 1–3 years with a mean of  $(2.5 \pm 0.3)$  years.

Comparison of baseline data between the two groups showed no statistically significant differences ( $P > 0.05$ ).

**1.2.1 Diagnostic Criteria** Patients met the diagnostic criteria for mixed hemorrhoids as specified in the *Chinese Guidelines for Diagnosis and Treatment of Hemorrhoids (2020 Edition)* [3]. Clinical manifestations included bleeding, prolapse, anal discomfort, dampness, pruritus, or foreign body sensation. Traditional Chinese medicine syndrome differentiation identified qi stagnation and blood stasis pattern: prolapse of internal hemorrhoidal masses, possibly incarcerated, with anal canal tightening, distending pain, and even anal margin edema, thrombosis formation, and marked tenderness; tongue red or dark red with white or yellow coating, pulse wiry, thin, and choppy.

### 1.2.3 Exclusion Criteria

- (1) Patients with other anorectal diseases;
- (2) Patients with speech comprehension 障碍 or severe mental disorders unable to cooperate with the study;
- (3) Patients with severe comorbidities such as malignant tumors, cardiovascular or cerebrovascular diseases, or hepatic/renal failure;
- (4) Patients unable to strictly adhere to the treatment protocol.

**1.3 Methods** The control group received routine postoperative treatment and nursing care following anorectal surgery under spinal anesthesia. Upon returning to the ward, patients were placed in supine position without a pillow, with fasting and fluid restriction for 6 hours. Cefuroxime sodium (Zhejiang Huidisen Pharmaceutical Co., Ltd., National Drug Approval Number H20084091, 1.5g/vial) 1.5g was administered intravenously in 0.9% sodium

chloride 100ml every 8 hours for infection prevention, and ibuprofen injection (Chengdu Easton Biopharmaceuticals Co., Ltd., National Drug Approval Number H20183344, 0.4g/vial) 0.4g was administered intravenously in 0.9% sodium chloride 100ml once daily for pain prevention.

Based on the control group treatment, finger acupoint pressure combined with moxibustion intervention was administered 4 hours postoperatively.

**Finger Acupoint Pressure:** (1) Assist the patient to assume supine position, fully expose the treatment area, and ensure warmth and privacy protection. (2) Perform rapid hand disinfection. (3) Select Tianshu (bilateral), Qihai, Guanyuan, and Zhongji according to medical orders, and mark them. (4) Adjust manipulation techniques and intensity, apply lubricant to both hands, and correctly employ point, press, and knead techniques: Use meridian-following kneading from Qihai to Zhongji along the Conception Vessel route 5-10 times. Apply flat-kneading point pressure on Qihai, Guanyuan, Zhongji, Tianshu, and Daheng, 50-100 times per point. After completion, gently pat or knead the treatment area to help the patient relax. Precautions: Continuously observe and inquire about the patient's sensations during operation, adjusting intensity promptly; Inform the patient that sensations of soreness, distension, numbness, heat, heaviness, or twitching at the treatment site are normal; Apply appropriate pressure, avoiding excessive force to prevent adverse events.

**Moxibustion:** Fix 2-3cm moxa sticks in the appropriate position within the moxibustion box and ignite. Assemble the moxibustion box outer packaging. Position the patient supine, expose the moxibustion area, and locate the above acupoints. Ensure cold protection and privacy. Position should be reasonable. Place towels or clothing layers over the acupoints, then fix the moxibustion box over the corresponding points. Continuously inquire about burning sensations, promptly adjust towel thickness to prevent burns. Regularly check skin condition to adjust towel thickness and control moxibustion duration, preventing burns. After moxibustion, remove the box and place it in a curved tray. Clean the local skin.

**1.4 Observation Indicators** Post-treatment urination status, urination success rate, and urinary retention incidence were compared between the two groups of mixed hemorrhoid patients.

**1.5 Statistical Analysis** Study results were evaluated using SPSS 22.0. Measurement data were expressed as  $(\bar{x} \pm s)$  and processed using t-tests. Count data were expressed as (%) and processed using  $\chi^2$  tests.  $P < 0.05$  was considered statistically significant.

## 2. Results

**2.1 Comparison of Post-treatment Urination Status Between Two Groups** The observation group demonstrated earlier first urination time,

shorter urination duration, and less post-void residual urine volume compared with the control group ( $P < 0.05$ ) (see Table 1).

**Table 1 Comparison of Post-treatment Urination Status Between Two Groups of Mixed Hemorrhoid Patients ( $\bar{x} \pm s$ )**

Group	First Urination Time (min)	Duration of First Urination (min)	Post-void Residual Urine Volume (ml)
Control	$248.75 \pm 13.79$	$45.84 \pm 11.90$	$67.31 \pm 19.94$
Observation	$210.63 \pm 13.74$	$32.40 \pm 10.62$	$52.90 \pm 12.08$
P-value	$< 0.05$	$< 0.05$	$< 0.05$

## 2.2 Comparison of Urination Success Rate and Urinary Retention Incidence Between Two Groups

Statistically significant differences were observed between the observation group and control group in urination success rate and urinary retention incidence ( $P < 0.05$ ) (see Table 1).

**Table 1 Comparison of Urination Success Rate and Urinary Retention Incidence Between Two Groups (n/%)**

Group	Urination Success Rate	Urinary Retention Incidence
Control	37 (75.50)	12 (24.50)
Observation	46 (93.80)	3 (6.12)
P-value	$< 0.01$	$< 0.01$

## 3. Discussion

Urinary retention falls under the category of “Linbi” (dribbling urinary blockage) in traditional Chinese medicine. Mixed hemorrhoids, as a common anorectal disease, are associated with numerous factors, primarily prolonged sitting, standing, or squatting, as well as dietary habits. Most patients require surgical treatment for effective improvement. However, surgery consumes vital qi, causing disharmony in qi, blood, and fluid metabolism. Qi deficiency leads to obstructed blood flow, lower jiao stagnation, and kidney qi insufficient to propel bladder qi, resulting in impaired bladder qi transformation and urinary dysfunction, thus causing “Linbi” syndrome [4]. Therefore, treatment should focus on tonifying and moving qi. The observation group employed finger acupoint pressure combined with moxibustion to stimulate relevant acupoints, achieving effects of tonifying vital qi, moving qi and unblocking collaterals, strengthening the foundation and cultivating yuan qi, and activating blood to resolve stasis, which can significantly improve urinary retention symptoms [5].

Finger acupoint pressure is a therapeutic technique in which practitioners use fingertips or pads to press appropriate acupoints or specific stimulation lines on the body surface, applying various manipulations including point, press, and

knead techniques. Through the action of meridians, this promotes smooth flow of qi and blood, restores impaired functional activities, and thereby treats and prevents disease. Qihai (CV6) [6] is located on the lower abdomen, on the anterior midline, 1.5 cun below the umbilicus, serving as the yuan-source point of the Huang membrane and the gathering place of innate primal qi. It governs all qi disorders, being where Conception Vessel qi emanates and where great qi converges, like hundreds of rivers flowing into the sea, hence the name Qihai (Sea of Qi). Qihai possesses strengthening functions, with capabilities of regulating qi mechanism, benefiting primal qi, tonifying kidney deficiency, and consolidating essence and blood. Moxibustion at this point can both augment primal qi and regulate, dredge lower jiao qi mechanism, strengthen bladder qi transformation, thus facilitating urination. Guanyuan (CV4) [7], the meeting point of the three foot yin meridians and Conception Vessel and the front-mu point of the small intestine, is located on the lower abdomen, on the anterior midline, 3 cun below the umbilicus. Guanyuan is an essential strengthening point, with functions of cultivating kidney foundation, tonifying primal qi, and restoring yang to prevent collapse. Moxibustion can strengthen the foundation and cultivate yuan qi, warm the kidney to govern the two excretions. Zhongji (CV3), a Conception Vessel point and bladder front-mu point [8], can promote qi transformation and dredge the bladder. Tianshu (ST25) [9], a point of the Foot Yangming Stomach Meridian and the large intestine front-mu point where large intestine meridian qi infuses and converges, serves as a pivot for qi ascending, descending, entering, and exiting. It functions to dredge and regulate the intestines, move qi and relieve stagnation, and strengthen the spleen and harmonize the stomach. Combined use of these acupoints can relieve muscle vessel stagnation and urethral spasm caused by pain and tension, relax the sphincter, achieve normal urination, and avoid urethral injury from catheterization.

This study demonstrated that the observation group receiving finger acupoint pressure combined with moxibustion intervention showed superior outcomes compared with the control group in postoperative urination time, urination duration, and post-void residual urine volume ( $P < 0.05$ ). Additionally, the observation group exhibited higher urination success rate and lower urinary retention incidence compared with the control group ( $P < 0.05$ ).

In summary, finger acupoint pressure combined with moxibustion demonstrates significant efficacy in preventing postoperative urinary retention after mixed hemorrhoid surgery and warrants clinical promotion.

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