

# *Clinical Efficacy of Finger Points Combined with Anisole Encapsulation in Rapid Recovery after Gynaecological Surgery*

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**Abstract:** To analyze the clinical efficacy of finger points combined with anisole encapsulation in rapid recovery after gynecologic surgery. Forty patients who underwent gynecological surgery in our hospital from August 2021 to August 2022 were selected, and the patients were divided into control (n = 17) and treatment (n = 23) groups according to the random number table method. In the control group, patients were given conventional treatments, including early postoperative water intake, feeding, early removal of urinary tubes, and active double lower extremities. Treatment groups were given the patients finger points combined with anisole encapsulation treatment on the basis of the control group. Patients in both groups were analyzed for improvement in clinical symptoms, pain at various time periods after surgery, postoperative rehabilitation, satisfaction with treatment, and effectiveness rates. Time to recovery of bowel sounds, time to flatus, time to defecation, time to disappearance of abdominal pain due to abdominal distension, and hospital stay were shorter in the study group compared with the control group ( $P < 0.05$ ); The VAS scores of the treated patients were lower than those of the control group at 12 h after surgery ( $P > 0.05$ ) in both groups, and at 24 h and 48 h after surgery ( $P < 0.05$ ); Patients in the treatment group had higher scores for physical functioning, social functioning, and physical functioning, as well as for somatic pain, compared with the control group ( $P < 0.05$ ); Patients in the treatment group had higher reliability, empathy, tangibles, responsiveness, and assurance scores compared to the control group ( $P < 0.05$ ); After treatment, the overall response rate of the treatment group was 95.65%, which was significantly higher ( $P < 0.05$ ) than that of the control group (70.58%). The use of finger points combined with anisole encapsulation to treat patients with gynaecological surgery can effectively shorten the hours' time of patients' clinical symptoms, reduce the degree of postoperative pain, and promote the rapid recovery of patients after surgery, with a better clinical treatment effect.

## 1. Introduction

Clinical investigations have revealed that a larger number of patients currently undergoing gynaecological surgery, either laparoscopic or open, need to be advocated for rapid recovery [1]. Clinical investigations have revealed that preoperative bowel preparation is not only able to reduce postoperative intra-abdominal infection in patients, but also to cause some other adverse effects [2]. It is therefore particularly important to give patients the means to recover quickly. Traditional Chinese medicine (TCM), as a treasure in our country, has an environmentally friendly, practical and low-cost efficacy, which patients are easy to accept [3]. Fennel, as a fruit of fennel, an umbellifer herb, is commonly cultivated in China, has a wide range of pharmaceutical sources, and is less expensive [4]. Finger puncta based on acupoints and using manual techniques to intervene on patients are able to effectively perform better on patients undergoing gynaecological surgery [5]. At present, no scholars have pointed out the effect evaluation of finger pointing combined with anisole encapsulation on the postoperative intervention of gynecological surgery patients, based on this, in this study, we selected patients undergoing gynecological surgery and gave the patients finger pointing assisted anisole encapsulation to intervene on the patients, and analyzed the effect of the combined intervention of the two means on the patients.

## 2. Materials and Methods

### 2.1 Materials

Subjects: Forty patients who underwent gynecological surgery in our hospital from August 2021 to August 2022 were selected, and the patients were divided into control (n = 17) and treatment (n = 23) groups according to the random number table method. Patients in the control group were 21 to 57 years old, mean (39.1 ± 14.3) years, with 8 ectopic pregnancies, 6 uterine fibroids, and 3 ovarian cysts; Total hysterectomy was performed in 4 patients, subtotal hysterectomy in 9 patients, and myomectomy in 4 patients. In the treatment group, patients ranged in age from 21 to 58 years, mean (39.5 ± 14.6) years, with 10 ectopic pregnancies, 8 uterine fibroids, and 5 ovarian cysts; Total hysterectomy was performed in 5 patients, subtotal hysterectomy in 11 patients, and myomectomy in 7 patients. The comparison of clinical data between the two groups was comparable (P > 0.05).

Inclusion criteria: patients fulfilled the diagnostic criteria defined in the gynaecology [6] for uterine fibroids, ovarian cysts, ectopic pregnancy; The patients all fulfilled the indications for gynaecological surgery; The patients and family members signed the informed notice, which was approved by the ethics committee of our hospital.

Exclusion criteria: those with severe heart, liver, and kidney dysfunction combined; Those with contraindications to surgery; Those with comorbid auto hematological diseases and coagulopathy; Comorbid mental illness, unable to better cooperate with the treated one.

### 2.2 Methods

#### 2.2.1 Treatment Modalities

The control group was given the patients routine treatment. (1) : the body position of the patient was instructed to set up, and the patient was intervened by means of ice application and music, depending on the condition of the patient, to strengthen the patient's health preaching. (2) Feeding instructions: the patient was instructed to drink orange peel water at 6h after surgery to promote the exhaust, strengthen the peristalsis of the gastrointestinal tract, and reduce the situation of the patient's abdominal distension. (3) Postoperative activity situation: after the anesthesia was awake,

the patient was instructed to lie flat in the patient's bed and perform ankle pump exercise and ankle surround exercise, and when the patient's condition allowed, the patient was encouraged to ambulate, and the degree of activity was determined according to the degree of patient bearing.

The study group administered the patient finger pointing assisted anisole encapsulation therapy on the basis of the control group: selected acupoints of Zusanli, Sanyinjiao, and leaky bone, and used thumb pointpressing Zusanli, Sanyinjiao, and leaky Valley, four of eight beats, that is, 32 times, for a total of six acupoints. The patient was subsequently given an anise envelope and 200 g anises were packed inside a double layered cotton bag to seam the bag well. Subsequently, the TCM bag was put into microwave oven and heated for 2min. Patients were instructed to take a recumbent position, wrap using a towel after the heated anise envelope was flattened, and place a heat compress on the patient's upper abdomen as well as umbilicus after the wrap was completed, pending cooling of the envelope, 2 ~ 4 times daily.

### 2.2.2 Index Analysis

1) Clinical symptomatic improvement was analyzed in both groups: patients were recorded by specialized medical staff after treatment and subsequently analyzed, which mainly included the time of recovery of bowel sounds, the time of flatus, the time of defecation, the time of disappearance of abdominal pain due to abdominal distension, and the time of hospitalization.

2) Analyzed the degree of pain at 12 h, 24 h, and 48 h after surgery in two groups: the degree of pain in patients was analyzed using the vas scoring scale [7], and the total score was 10, with higher scores demonstrating more severe pain.

3) Two groups of patients were analyzed for postoperative rehabilitation: patients were analyzed for postoperative rehabilitation using the simplified SF-36 quality of life scale [8], which includes a total of 4 dimensions, with higher scores demonstrating better postoperative rehabilitation.

4) Two groups of patient satisfaction were analyzed: patient satisfaction was analyzed using the service quality scale in PZB (SERVQUAL) [9], which mainly included 5 dimensions, each with 5 points, and higher scores demonstrated higher patient satisfaction.

5) Treatment effectiveness: the treatment efficacy was judged by referring to the relevant criteria based on the guiding principles for clinical research of new drugs in Chinese medicine [10] combined with this study: return of bowel sounds to normal, preservation of 3-5 times / min, and normal flatus were recorded as marked efficacy; Bowel sounds were weak, kept 1-2 times / min, and flatus was scored as effective when normal; Condition was not improved and even aggravated was scored as invalid.

### 2.3 Statistical Treatment

General means of software spss20.0 statistical data analysis was performed in the way that software operation can be used to perform sample statistical data analysis as well as data processing. Error measures between sample groups were compared using  $(\bar{x} \pm s)$ , and frequencies between groups were calculated using the t-difference test for comparison; The% test for metrology data, the  $\chi^2$  test for frequency comparison between groups, and  $P < 0.05$  are considered comparable.

## 3. Results

### 3.1 Clinical Improvement after Surgery in the Two Groups

As shown in Table 1, the recovery time of bowel sounds, time of flatus, defecation time, time of disappearance of abdominal pain due to abdominal distension as well as the hospital stay were

shorter in the study group compared with the control group, with statistically significant differences ( $P < 0.05$ ).

Table 1. Analysis of clinical improvement after surgery in the two groups ( $\bar{x} \pm s$ )

| group           | Number of cases (n) | Time to return of bowel sounds(h) | Exhaust time(h) | Time to defecation(h) | Abdominal distension abdominal pain disappearance time(h) | Length of hospital stay(d) |
|-----------------|---------------------|-----------------------------------|-----------------|-----------------------|---|----------------------------|
| control group   | 17                  | 20.26±3.1<br>5                    | 25.13±3.4<br>2  | 46.32±<br>6.25        | 20.12±3.28  | 4.62±1.0<br>2              |
| Treatment group | 23                  | 16.52±2.1<br>9                    | 17.42±1.0<br>4  | 35.16±<br>4.29        | 16.53±1.67  | 2.61±0.6<br>7              |
| <i>t</i>        |                     | 4.434                             | 10.230          | 6.702                 | 4.528   | 7.522                      |
| <i>P</i>        |                     | 0.001                             | 0.001           | 0.001                 | 0.001   | 0.001                      |

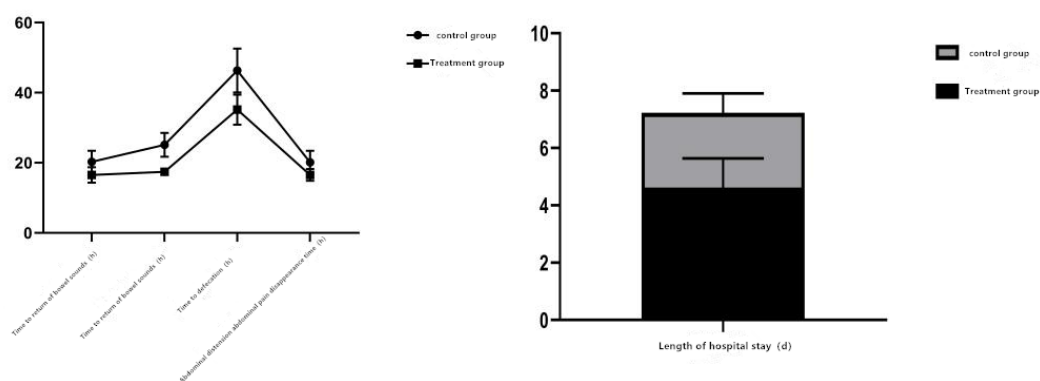


Fig.1. Analysis of the clinical improvement after surgery between the two groups

### 3.2 Analysis of Postoperative Pain in the Two Groups

As shown in Table 2, there was no statistical difference in the VAS scores between the two groups at 12 h after surgery ( $P > 0.05$ ), and the VAS scores of the treated patients were lower than those of the control group at 24 h and 48 h after surgery ( $P < 0.05$ ).

Table 2. Analysis of postoperative pain severity in the two groups [ $(\bar{x} \pm s)$ , (PTS)]

| group           | Number of cases (n) | VAS       |           |           |
|-----------------|---------------------|-----------|-----------|-----------|
|                 |                     | 12h       | 24h       | 48h       |
| control group   | 17                  | 4.26±0.35 | 3.86±0.29 | 2.98±0.31 |
| Treatment group | 23                  | 4.24±0.33 | 3.06±0.18 | 2.34±0.16 |
| <i>t</i>        |                     | 0.185     | 10.750    | 8.510     |
| <i>P</i>        |                     | 0.854     | 0.001     | 0.001     |

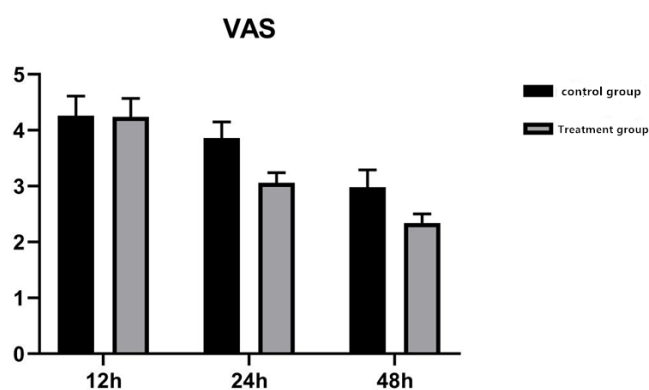


Fig. 2. Analysis of postoperative pain in the two groups

### 3.3 Analysis of Postoperative Rehabilitation in the Two Groups

As shown in Table 3, patients in the treatment group had higher scores of physical function, social function, physical function, as well as somatic pain compared with the control group, with statistically significant differences between the two groups ( $P < 0.05$ ).

 Table 3. Analysis of postoperative rehabilitation in the two groups [ $(\bar{x} \pm s)$ , (PTS)]

| group           | Number of cases(n) | physiological function | social function | Physiological functions | Somatic pain |
|-----------------|--------------------|------------------------|-----------------|-------------------------|--------------|
| control group   | 17                 | 81.26±10.34            | 83.59±9.53      | 84.26±9.67              | 76.34±10.26  |
| Treatment group | 23                 | 118.35±11.25           | 119.52±10.26    | 121.67±11.26            | 120.16±10.95 |
| <i>t</i>        |                    | 10.660                 | 11.280          | 11.010                  | 12.850       |
| <i>P</i>        |                    | 0.001                  | 0.001           | 0.001                   | 0.001        |

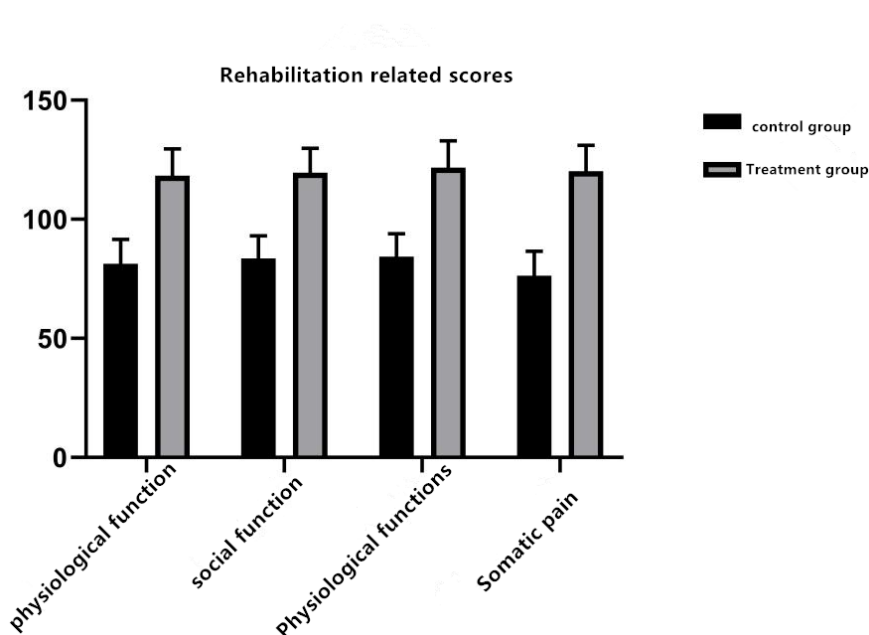


Fig. 3. Analysis of postoperative rehabilitation in the two groups

### 3.4 Analysis of Patient Satisfaction between the Two Groups

As shown in Table 4, patients in the treatment group had higher reliability, empathy, tangibility, responsiveness, and reassurance scores compared with the control group, with statistically significant differences between the two groups ( $P < 0.05$ ).

Table 4. Analysis of patient satisfaction between the two groups [ $(\bar{x} \pm s)$ , (PTS)]

| group           | Number of cases(n) | reliability | empathy   | tangibles | Reactivity | Reassurance |
|-----------------|--------------------|-------------|-----------|-----------|------------|-------------|
| control group   | 17                 | 3.95±0.31   | 3.99±0.27 | 4.01±0.28 | 4.02±0.31  | 3.89±0.26   |
| Treatment group | 23                 | 4.69±0.29   | 4.63±0.41 | 4.87±0.19 | 4.66±0.39  | 4.59±0.31   |
| <i>t</i>        |                    | 7.749       | 5.593     | 11.580    | 5.582      | 7.547       |
| <i>P</i>        |                    | 0.001       | 0.001     | 0.001     | 0.001      | 0.001       |

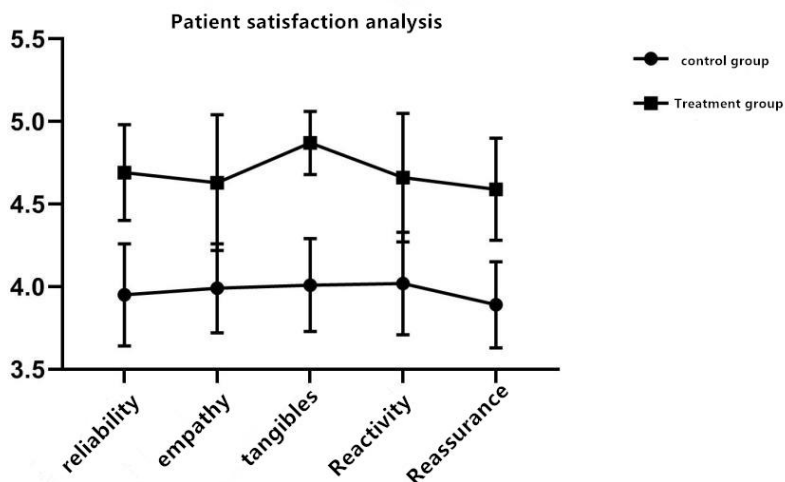


Fig. 4. Analysis of patient satisfaction with treatment in the two groups

### 3.5 Treatment Response Rate Analysis

As shown in Table 5, the total effective rate of the treatment group was 95.65%, which was significantly higher than 70.58% of the control group after treatment, with a statistical difference between the two groups ( $P < 0.05$ ).

Table 5. Analysis of treatment response rates in the two groups [n,%]

| group           | Number of cases(n) | Development of effect | Effective | invalid | Overall response rate |
|-----------------|--------------------|-----------------------|-----------|---------|-----------------------|
| control group   | 17                 | 8                     | 4         | 5       | 12(70.58)             |
| Treatment group | 23                 | 13                    | 9         | 1       | 22(95.65)             |
| <i>t</i>        |                    |                       |           |         | 4.816                 |
| <i>P</i>        |                    |                       |           |         | 0.028                 |

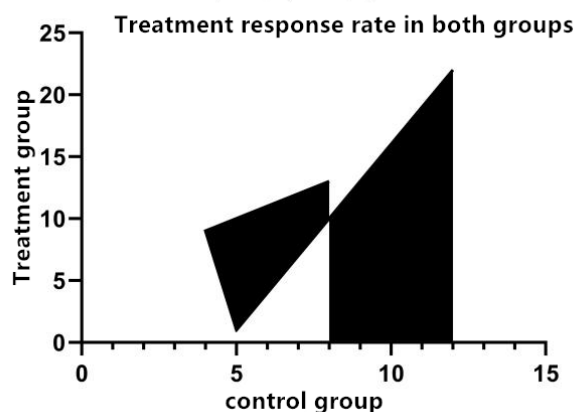


Fig. 5. Analysis of treatment response rates in the two groups of patients

#### 4. Discussion

With the changes of our national lifestyle as well as dietary structure in recent years, patients undergoing gynecological surgery are increasing, and although they can effectively solve the patient's disease, the situation of postoperative recovery becomes an intractable problem after surgery. Clinical investigations have revealed that the postoperative recovery of gynaecological surgery is often affected by factors such as surgical irritation, traumatic stress as well as postoperative complications, which in turn lead to poor postoperative recovery of patients and affect the therapeutic effects of surgery [11-12].

At present, clinical interventions after gynaecological surgery are often offered to patients according to their disease, physiological and so on needs. Because patients undergoing surgery have wide variations in their physical condition and other conditions, and the effect of interventions is cumbersome, it makes it difficult for health care workers to meet the health needs of people with respect to the intensity of interventions for surgical pain, stress response, and postoperative complications [13]. Therefore, finding an effective means of intervention is particularly important. The perception of "" terminal illness "" in traditional Chinese medicine (TCM) is quite far away, and it has a relatively rich experience of treatment, which can effectively alleviate postoperative complications [14]. As a treasure of traditional Chinese medicine (TCM) in China, the main thing is that physicians use a hand to make points after selecting a certain acupoint according to the different conditions of patients as well as the diseased species, and press, pinch, beat and buckle and other non manual stimulation, and then play the role of passing meridians, and then promote a dismal flow of Qi and blood in the body, and play a certain means of treatment and prevention of diseases, while point of finger is a means of point therapy [15]. And anisic warm and taste, able to play the functions of cold kinesis and analgesia, body Qi and stomach [16]. In this study, we found that gynaecological surgery patients were treated with finger point assisted anisole encapsulation postoperatively, and the patients' postoperative pain level was effectively reduced, and the patients' postoperative recovery was better, indicating that the use of two means to treat patients undergoing gynaecological surgery has a better therapeutic effect.

Gynecologic surgery is often followed by gastrointestinal disturbances and even symptoms of bowel paralysis. However, gastrointestinal dysfunction belongs to the categories of 'fullness', 'bloating' in Chinese medicine, which holds that surgical trauma, meridian incompetence, reverse disturbance of Qi machine, lifting and falling imbalance, and then leading to blockage of the



operation of Qi and blood [17-18]. Qi stagnation in the trijiao, loss of warmth as well as the function of carrying blood, blood resistance to cold then coagulation, blood stasis in meridians, and then lead to the dysregulation of gastrointestinal function. Encapsulation of traditional Chinese medicine (TCM) is used as a therapeutic measure in one of the TCM treatments, and in this article, fennel is used as a basic medicine to treat patients undergoing gynecological surgery, in which fennel acts as cold repellent and analgesic, as well as Qi and stomach [19-20]. In this study, it was found that after giving the gynaecological surgery patients postoperative finger pointing assisted with anisole encapsulation for treatment, the patients' recovery time of bowel sounds, time of flatus, defecation time, disappearance time of abdominal pain with abdominal distension, and postoperative hospital stay were all better reduced. Moreover, it was found in this study that patient satisfaction as well as treatment effect were better improved after treatment, which indicated that the combination therapy of the two means had a better treatment effect. The reason for this might be that anisole hot apply acupoints to make the smell of the drug permeate through the skin, achieve the effect of warm meridian collaterals, and conduct Qi and invigorate blood.

In conclusion, the administration of postoperative finger pointing assisted anisole encapsulation therapy to gynecological surgery patients can effectively improve the intestinal function of patients, and can relieve the pain level of patients after surgery, which plays a better therapeutic effect.

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### Data Availability

Data sharing is not applicable to this article as no new data were created or analysed in this study.

### Conflict of Interest

The author states that this article has no conflict of interest.

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