

## Experience in Treating Acute Mastitis during Lactation with Bian Stone Combined with Manual Milk Drainage Massage Technique

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### Abstract

**Purpose:** To investigate the application value of Bian stone combined with manual massage and milk drainage technique in the treatment of acute mastitis during lactation.

**Methods:** Our department selected a total of 30 patients with acute mastitis who visited our hospital from June to August 2023 as study subjects. All patients were treated with Bian stone combined with manual massage and milk drainage technique, and the treatment outcomes were subsequently evaluated.

**Results:** The recovery rate on day 1 reached 40.00%, the recovery rate on day 2 was 26.00%, and the recovery rate on day 3 was 33.00%, indicating that all patients had recovered after receiving 3 days of treatment.

**Conclusion:** The application of Bian stone combined with manual massage and milk drainage technique in treating patients with acute mastitis achieved favorable therapeutic effects. It is an effective measure for relieving symptoms and unblocking mammary collaterals, and is worthy of clinical promotion and application.

### Full Text

#### Preamble

#### A Brief Discussion on Stone Needle Therapy Combined with Manual Massage for Treating Acute Mastitis During Lactation

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## Abstract

**Objective:** To investigate the clinical application value of stone needle therapy combined with manual massage milk extraction technique in treating acute mastitis during lactation. **Methods:** A total of 30 patients with mastitis who presented to our hospital between June and August 2023 were selected as study subjects. All patients received treatment with stone needle therapy combined with manual massage milk extraction technique, and treatment outcomes were subsequently evaluated. **Results:** The recovery rate reached 40.00% on the first day, 26.00% on the second day, and 33.00% on the third day, indicating that all patients had recovered after three days of treatment. **Conclusion:** The application of stone needle therapy combined with manual massage milk extraction technique for patients with mastitis achieved favorable therapeutic effects, representing an effective measure for symptom relief and mammary duct dredging that warrants clinical promotion and application.

**Keywords:** Acute mastitis; Stone needle therapy; Manual massage milk extraction technique; Traditional Chinese medicine nursing

## Introduction

Acute mastitis is a common and frequently occurring condition among lactating women, with relevant literature reporting that 20% of breastfeeding women have experienced acute mastitis during lactation [1]. Clinical manifestations primarily include localized breast hardening, elevated skin temperature, tenderness, and redness, sometimes accompanied by systemic symptoms such as fever and chills. While Western medicine attributes this disease to bacterial infection, Chinese medical theory posits that it results from liver qi stagnation, dietary imbalance, and stomach meridian obstruction [2]. Chinese medicine emphasizes that treating lactation acute mastitis should focus on methods that dredge the mammary ducts. Sibir stone is a type of stone traditionally used in Chinese medicine for making bian (stone needle) instruments. Xie et al. [3] discovered that heated bian instruments exhibit beneficial far-infrared thermal emission within wavelengths favorable to the human body. This study aims to explore the clinical application value of stone needle therapy combined with manual massage milk extraction technique for treating acute mastitis during lactation.

## Methods

### Patient Characteristics

We selected 30 patients with mastitis who presented to our hospital from June to August 2023 as study subjects. Patient ages ranged from 22 to 40 years, including 22 primiparas and 8 multiparas. All patients clinically presented with breast redness, swelling, heat, and pain symptoms. Disease onset predominantly occurred 3-4 weeks postpartum, with lesion distribution in the left breast in 15 cases, right breast in 8 cases, and both breasts in 7 cases. Inclusion and exclusion criteria encompassed patients with concurrent other breast diseases or history of breast surgery [4].

### Assessment Criteria

**Pain Assessment:** The International Visual Analogue Scale (VAS) was employed [5]. Patients scored their subjective pain: 0 points indicated no pain; 1-3 points indicated mild pain (slight subjective pain, mild tenderness with firm touch); 4-6 points indicated moderate pain (noticeable pain with tenderness, tolerable, not affecting normal life); and 7-10 points indicated severe pain (obvious pain, tenderness with light touch, affecting normal life).

**Mass Size Assessment [6]:** Breast mass size was calculated based on the maximum diameter of the mass, measured using medical rulers or color Doppler ultrasound. For multiple masses, the average value was taken. The scoring system was: no mass (0 points); maximum diameter <3 cm (Level 1, 6 points); maximum diameter 3-6 cm (Level 2, 12 points); and maximum diameter >6 cm (Level 3, 18 points).

**Psychological Status:** The Self-Rating Anxiety Scale (SAS) was used to evaluate patients [7]. A total anxiety score below 50 was considered normal, 50-60 indicated mild anxiety, 61-70 indicated moderate anxiety, and scores above 70 indicated severe anxiety.

**Physical Condition:** Vital signs were measured for all patients. Temperature scoring criteria were: <37.3°C (0 points); 37.3°C-39.0°C (2 points); and >39.0°C (4 points).

**Redness and Swelling Range Assessment:** The scoring system was: no skin redness (0 points); redness/swelling range <3 cm (Level 1, 3 points); range 3-6 cm (Level 2, 6 points); and range >6 cm (Level 3, 9 points).

### Intervention Protocol

Based on patients' current conditions, a nursing plan was formulated: treatment with stone needle therapy combined with manual massage milk extraction technique to alleviate pain symptoms, improve sleep patterns, address anxiety from knowledge deficits, and provide psychological counseling.

All 30 patients received stone needle therapy combined with manual massage milk extraction technique administered by professional nursing staff. The procedure was as follows: (1) Preparation: The treatment area was fully exposed, and an appropriate amount of lubricant was gently applied. The stone needle was heated to a warm temperature (40-42°C). (2) Acupoint stimulation: The warm stone needle was applied to acupoints including Jianjing (GB21), Rugen (ST18), Danzhong (CV17), Qimen (LR14), and Wuyi (ST15) using techniques such as sensing, pressing, rubbing, stroking, and vibrating to stimulate peripheral breast acupoints and promote meridian patency. (3) Nipple cleaning: Sterile cotton swabs were used to remove milk residue from the nipple surface. (4) Using the thumb and index finger in opposition, pressure was applied at the edge of the areola, then lifted and pulled in a superomedial direction to stimulate the areolar region and enhance the milk ejection reflex. The breast was lubricated as needed, and a “full-surrounding” dredging technique was applied to all quadrants and layers of the breast to soothe collaterals and expel accumulated milk until the entire mammary gland became soft. The manual milk extraction techniques were organically combined with moderate pressure that patients could tolerate [8].

On the second day, patients were reassessed to determine whether additional treatment was needed. If required, health education was provided, emphasizing proper breastfeeding habits, timely cleaning of milk crust and dead skin from nipples after feeding, and application of sesame oil or egg yolk oil for nipple fissures. Patients were assisted in ensuring correct infant latching to guarantee adequate milk removal. Those with severe pain were instructed to support the affected breast with a triangular bandage or loose nursing bra to reduce discomfort. Patients were advised to consume light foods and avoid greasy, rich foods. Family members were encouraged to communicate more with patients to provide psychological support [9].

### Effect Evaluation

Evaluation criteria were as follows: *Cured*—breast redness, swelling, and pain disappeared, milk drainage was smooth, body temperature normalized, and infant feeding proceeded normally; *Effective*—breast induration became softer and smaller, milk drainage occurred but was not smooth; *Ineffective*—breast redness, swelling, heat, and pain persisted, and milk could not be drained [10]. Among the 30 patients, 12 cases showed disappearance of breast redness, swelling, and pain with smooth milk drainage and normal body temperature on the first day, yielding a cure rate of 40.00%, with the remaining 18 cases being effective. On the second day, 8 cases returned to normal (26.00% cure rate), with the remaining 10 cases effective. On the third day, 10 cases returned to normal (33.00% cure rate), meaning all patients had recovered after three days of treatment.

## Discussion

The initial stage of lactation acute mastitis primarily manifests as breast pain and swelling, localized skin swelling with red or slightly red coloration, elevated temperature, and hard nodules. Without timely intervention and treatment, the condition can worsen and easily form abscesses. Therefore, early intervention and preventive measures are particularly important [11]. Western medicine considers that the disease may be caused by milk stasis in the mammary ducts due to certain factors, which can lead to bacterial infection and progression to acute suppurative mastitis if not managed promptly. While selective antibiotic therapy can achieve certain therapeutic effects for bacterial infection, it often results in localized breast nodules after treatment that affect breastfeeding. Chinese medicine treatment methods are green, side-effect-free, and do not require interrupting breastfeeding [12-13]. Since ancient times, numerous physicians have followed etiology differentiation, organ differentiation, and other approaches to treat lactation mastitis [14]. When acute mastitis progresses to abscess formation, patients must undergo weaning, debridement, and long-term dressing changes, causing tremendous physical and psychological suffering and increasing economic burden [15]. In this treatment, the stone needle is warmed to 40-42°C, with a smooth and fine surface and large contact area that promotes milk drainage, reduces patient pain, and is more readily accepted by patients, thereby improving clinical efficacy. Qu et al. [16] found that the seven-step stone needle milk dredging method promotes milk drainage through massage, accelerates local breast blood circulation, facilitates milk entry into mammary ducts for drainage, and thus alleviates breast pain and relieves milk stasis. Therefore, the application effect of stone needle therapy in treating acute mastitis has been recognized and warrants clinical promotion and application.

The stone needle therapy combined with manual massage milk extraction technique employed in this study is green, safe, side-effect-free, features short treatment duration, demonstrates significant efficacy, and allows continued breastfeeding. This technique falls within the scope of traditional Chinese medicine nursing, whose development must rely on science, supported by key specialty construction and deepened quality nursing services to continuously enhance the accessibility of TCM nursing care. Deepening the connotation of TCM nursing and gradually improving the scientific research system of integrated Chinese and Western nursing care will promote further development of integrated nursing [17].

## Conclusion

This study's results demonstrate that stone needle therapy combined with manual massage milk extraction technique offers the advantage of simple treatment methods, restoring breast health and relieving symptoms, making it suitable for clinical promotion and application. However, this study only observed intervention effects in a subset of outpatient acute mastitis cases and lacked systematic follow-up at 7, 14, and 28 days post-recovery. Issues such as long-term breast

redness, pain severity, and breastfeeding status were not addressed, which will be the focus of future research.

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