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Name of Journal: *World Journal of Clinical Cases*

Manuscript NO: 82177

Manuscript Type: CASE REPORT

**Treatment of Breast Abscess in Lactation Period with Gualou Xiaoyong Decoction
and Painless Lactation Manipulation: A Case Report and Literature Review**

Case report

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Abstract

BACKGROUND

Breast abscess during lactation is a severe complication of acute mastitis during lactation, which can lead to discomfort, high fever, breast fistula, sepsis, septic shock, breast damage, disease persistence and frequent hospitalization. Breast abscesses may also lead the mother to discontinue breastfeeding, thereby harming the infant's health. The predominant pathogenic bacteria were *Staphylococcus aureus*, *Staphylococcus epidermidis*, and *Streptococcus*. The incidence of breastfeeding abscesses in breastfeeding women ranges between 4 and 11%. In cases of breast abscess, the rate of cessation of nursing is 41%. In instances of breast fistula, the rate of cessation of nursing is very high (66.7 percent). Furthermore, 50% of women with breast abscesses must be hospitalized and treated with intravenous antibiotics. Most patients were previously treated with antibiotics, abscess puncture, and surgical incision and drainage. The patients suffered from stress and pain and easily induced breast scarring; the disease's progression was prolonged and recurrent, interfering with infant feeding. Consequently, it is crucial to discover an adequate cure.

CASE SUMMARY

A 28-year-old woman with a breast abscess was treated with Gualou Xiaoyong Decoction and painless breast opening manipulation 24 days after cesarean delivery. On the second day of treatment, the patient's breast mass was significantly reduced, the pain was significantly reduced, and the general asthenia was improved. All conscious symptoms disappeared after three days, breast abscesses faded after twelve days of treatment, inflammation images disappeared after twenty-seven days, and normal lactation images were restored.

CONCLUSION

In treating breast abscesses during breastfeeding, the combination of Gualou Xiaoyong Decoction and painless lactation provides a positive therapeutic impact. This disease's

treatment offers the advantages of a short course of treatment, no need to discontinue breastfeeding, and the ability to rapidly mitigate symptoms, which can be used as a reference in clinical practice.

Key Words: case report; breast abscess during lactation; Gualou Xiaoyong Decoction; painless breast opening technique; literature review.

Jin L, Zheng H, Ye H, Lin Y, Yang Y, Liu J, Li R. Treatment of Breast Abscess in Lactation Period with Gualou Xiaoyong Decoction and Painless Lactation Manipulation: A Case Report and Literature Review. *World J Clin Cases* 2023; In press

Core Tip: Breast abscess during lactation is a serious complication of acute mastitis during lactation, which can cause breast pain, fistula, sepsis, septic shock, breast destruction, and disease persistence. Breast abscesses may lead a mother to discontinue nursing, harming the infant's health. Most patients were previously treated with antibiotics, abscess puncture, and surgical incision and drainage. The patients suffered from stress and discomfort, which readily induced breast scarring. Moreover, the disease's progression was prolonged and recurrent, interfering with newborn feeding. Traditional Chinese medicine Gualou Xiaoyong Decoction combined with painless milking manipulation provides the benefits of short treatment duration, the lack of breastfeeding discontinuation, and speedy symptom alleviation. This article describes a case of breast abscess in breastfeeding that was cured with Gualou Xiaoyong Decoction combined with painless breast opening therapy. It has the advantages of a short course of treatment, no trauma, cost saving, no need to stop lactation, and easy to improve symptoms quickly.

INTRODUCTION

The World Health Organization recommends six months of exclusive breastfeeding following delivery ^[1-2]. However, mothers are unable to implement exclusive

breastfeeding for various reasons, leaving their infants susceptible to respiratory and gastrointestinal diseases. Furthermore, the risk of noncommunicable diseases in childhood and adulthood, such as heart disease, obesity, diabetes, cancer, allergies, asthma, and chronic lung, liver, and kidney diseases, also increases [1-2]. A quarter of nursing mothers believe that acute mastitis during lactation is the primary cause of their decision to wean. It is reported that the incidence rate of mastitis among breastfeeding women is as high as 33 percent, of which approximately 11 percent will be secondary to breast abscess [3], thereby severely impacting the physical and mental health of breastfeeding women, leading to the cessation of breastfeeding (41 percent), breast fistula (11.1%), readmission (50%) and even permanent breast deformity [4]. Here, we present a case of breast abscess in lactation that was well treated with Gualou Xiaoyong Decoction combined with painless breast opening therapy. It has the advantages of quick symptom alleviation, a short treatment duration, being non-invasive, economical, and not requiring the cessation of breastfeeding.

CASE PRESENTATION

Chief complaints

On August 31, 2022, Ma, a 28-year-old Chinese woman, was initially diagnosed as “24 days after cesarean section, 9 days after breast swelling and pain.”

History of present illness

The cesarean section was conducted 24 days before the diagnosis, and the operation was without incident. During the nine days preceding the diagnosis, the patient experienced breast pain, lethargy, little aversion to colds, nausea, and vomiting. On August 27, an ultrasound test in another hospital reported: “Left breast hypoechoic area, BI-RADS category 3, consider inflammation, right breast hyperechoic mass, consider milk accumulation.” Oral consumption of Chinese medicine and cefuroxime axetil pills had no noticeable effect. On August 30, the other hospital conducted another ultrasound test which reported: “During lactation, several hypoechoic nodules were

observed in the left breast, the larger ones were about 2.6 * 1.2cm (in the direction of 8 o'clock) and 1.3 * 1.0cm (in the direction of 10 o'clock), the shape was irregular, the edges were blurry, and fine light spots were detected inside, the imaging behind remained unchanged, and there was no impact on the surrounding tissues. CDFI; no blood flow signal was found inside." , considering breast abscess, breast cyst with infection. Under ultrasonography guidance, a fine needle puncture was performed, and 7 mL of purulent fluid was collected. The patient reported the pain and enlargement of both breasts to be excruciating, the absence of fever, and lethargy. The pain rating (VAS rating) was 7.

History of past illness

The patient has no other known medical conditions or allergies.

Personal and family history

The patient was a non-smoker and a non-drinker with no family history; she also denied any interaction within epidemic areas.

Physical examination

Physical examination report: Body temperature of 37 °C multiple 4cm * 4cm sized masses are palpable in the left breast, and a 10cm * 7cm sized mass is palpable in the right breast, with obvious tenderness. The breast skin on the surface of the left breast lump is dark and about 2cm * 2cm in size. Blood routine examination: white blood cell count (WBC): 8.3 * 10⁹/L, neutrophil percentage (NE%): 69.8%, lymphocyte percentage (LY%): 22.8%, C-reactive protein (CRP): 16.39mg/L, procalcitonin (PCT): 0.03mg/L, milk bacterial culture: staphylococcus epidermidis. 3 doses of Gualou Xiaoyong Decoction are to be taken orally, and lactation should be performed once. The milk from the left breast contains hints of blood, while the milk color of the right breast is normal. It is recommended to stop breastfeeding on the left breast for one day and regularly use

a breast pump to suck out the milk on the left side. Breastfeeding from the right breast can be continued.

Laboratory examinations

On the return visit on September 1, 2022: the general fatigue disappeared, the spirit improved significantly compared with the previous day, the swelling and pain of the left breast decreased significantly, and the pain of the right breast lump disappeared. Visual analogue score (VAS): 0. Physical examination: the body temperature was 36.2 °C the left breast mass was significantly smaller than the previous day, and two hard masses with a size of about 2cm * 2cm were palpable, the skin was slightly red, and the right breast mass had disappeared. The patient was given another painless lactation, and no pyogenic milk was found in both breasts. It is suggested that breast feeding can be performed on both breasts. Another milk culture revealed: Staphylococcus epidermidis, continue to take orally in front. The follow up visit on September 2, 2022, revealed: The swelling and pain of bilateral breasts mostly disappeared, the mass site on the left breast was slightly red, there was no obvious fatigue and other discomforts, and the VAS was 0. Blood routine examination: WBC: $5.0 \times 10^9/L$, N: 64.3%, L: 27.2%, CRP: 4.79, PCT: $<0.02mg/L$, bacterial milk culture: Staphylococcus epidermidis. The first 5 doses are to be continued. Another ultrasound is to be conducted on September 5, 2022: Several hypoechoic masses can be seen in the left breast, with a larger size of about 1.8 * 0.6cm (in the direction of 10 points), considering abscess. On September 9, 2022, the breast swelling, and pain were barely noticeable. A 2cm * 2cm, 1cm * 1cm mass was palpable on the left breast. The tenderness was not obvious, and the skin was slightly red. 7 doses of Chinese medicine were prescribed. On September 12, a repeat ultrasound revealed: several hypoechoic masses were seen in the left breast, with a larger size of about 0.9 * 0.4cm (10 o'clock direction). Ultrasound diagnosis: multiple hypoechoic masses in the left breast, considering inflammation. A return visit on September 16: 40 days after the cesarean section, revealed that breast pain has disappeared, no discomfort, VAS 0. The physical examination revealed: a body

temperature of 36.2 °C a hard mass sized 1cm * 1cm was palpable in the left breast, no tenderness or color change were noticed. 7 more doses of Chinese medicine were prescribed. Another return visit on September 23 revealed: 47 days after cesarean section, no breast pain or fatigue were reported, the VAS was of 0 points, a mass sized 0.3cm * 0.3cm mass was palpable on the left breast that was soft and devoid of tenderness, the skin was also not red. 5 doses of traditional Chinese medicine were prescribed, and breast opening was performed once. The rechecked ultrasound on September 27 revealed: breast image in normal lactation period. The return visit on September 30 revealed: 54 days after cesarean section, no discomfort such as breast swelling and pain were reported, the breast lump had disappeared, no skin redness, swelling, heat and pain, combined with cold, sore throat, and coughing. 7 doses of Chinese medicine were subsequently prescribed. On October 7, the cold was cured, without breast swelling and pain, without breast lump. Due to repeated positive bacterial culture findings, two boxes of azithromycin tablets and seven doses of traditional Chinese medicine were added. The return visit on October 17 revealed: The patient had no discomfort such as breast pain, fever and fatigue. The bacterial culture in the milk was revealed to be Staphylococcus epidermidis. The treatment cycle was terminated because the patient had no symptoms and the routine blood test, C-reactive protein, procalcitonin, and B-ultrasound were normal. See **Table 1** for the results of bacteria culture in the milk.

Imaging examinations

2022.8.30: In the lactating breast, several hypoechoic nodules can be seen in the left breast, the larger ones are about 2.6 * 1.2cm (in the direction of 8 points) and 1.3 * 1.0cm (in the direction of 10 points), the shape is irregular, the edge is fuzzy, and fine light spots can be detected inside. CDFI ; No blood flow signal was found inside, several cystic nodules can be seen in the right breast, the larger size is about 0.4 * 0.4cm (in the direction of 10 points), and the internal sound transmission is poor. Diagnosis: cyst of right breast with infection, multiple abscesses of left breast.

2022.9.5: Several hypoechoic masses can be seen in the left breast, the larger size is about 1.8 * 0.6cm (in the direction of 10 points), the shape is irregular, the edge is fuzzy, and fine light spots can be detected inside. CDFI: no blood flow signal is found.

Diagnosis: multiple hypoechoic masses in the left breast, considering abscess.

2022.9.12: Several hypoechoic masses can be seen in the left breast, the larger one is about 0.9 * 0.4cm (in the direction of 10 points), with irregular shape and fuzzy edges.

CDFI: no abnormal blood flow signal is found. Diagnosis: left breast has multiple hypoechoic masses, and inflammation is considered.

2022.9.27: Bilateral mammary glands have normal morphology, thickened glands, enlarged volumes, clear layers, uneven distribution of echo in glands, dilated central mammary ducts, and local ducts are filled with low echo. CDFI: no abnormal blood flow signal is found in bilateral mammary glands. Diagnosis: Breast during lactation.

(See Figure 1)

FINAL DIAGNOSIS

Lactational mastitis

TREATMENT

Chinese medicine: Gualou Xiaoyong Decoction:

Chaihu 9g, Gualou skin 15g, Luffa complex 15g, Lobelia lobata 15g, Dandelion 15g, Paeonia rubra 15g, Tongcao 6g, Peach kernel 10g, Fried Coix seed 30g, Chixiaodou 20g, Angelica sinensis 15g, Fried Atractylodes macrocephala 15g, Arctium lappa 15g, Honeysuckle 20g, Forsythia suspensa 15g, Poria cocos 15g, Lulutong 10g, Angelica dahurica dahurica 15g, Saponin 15g. Boil 400 mL of the medicinal solution, and consume it at a lukewarm temperature in the morning and afternoon, 200 mL in the morning and afternoon respectively, one dose a day, for a total of 5 doses.

(2) Painless Lactation Technique:

Tanzhong, Ruzhong, Rugen, Qimen, Shaohai, Chize, Tianchi, Tianxi, *etc.* Massage the breast to remove the accumulated milk: place the thumb and index finger of one hand

at the junction of black and white areola skin, remove the front milk with the downward inward pressing method, then apply the massage oil the hands, gently massage the milk block 3 times with the finger and towards to the nipple direction to discharge the milk, and massage each breast for 20-30 minutes following this method.

OUTCOME AND FOLLOW-UP

After two months of follow-up, the patient's condition had not relapsed. The infants did not suffer from fever, abdominal pain, diarrhea, abdominal distension, nausea, vomiting and other adverse reactions.

DISCUSSION

³ Within the first six months of life, the World Health Organization recommends exclusive breastfeeding. Acute mastitis and breast abscess during lactation are regarded as the leading causes of unintentional weaning, preventing mothers from implementing exclusive nursing. Acute mastitis during lactation is a form of breast cellulitis affecting the interlobular connective tissue. The WHO defines the disease as “a state of breast inflammation, which may or may not be accompanied by infection” ^[1,5], which may lead to breast abscess and septic fever ^[6], and may directly lead to the cessation of breast feeding. The disease can elicit breast pain locally and is frequently accompanied by fast developing systemic symptoms, such as fever, muscular pain, chills, and fatigue^[4]. In severe cases, the breast may be permanently scarred, and its occurrence rate ranges from 3 to 33 percent, with 4 to 11 percent developing breast abscesses.^[3]. If any of the following criteria is met, it is diagnosed as acute mastitis during lactation: (1) local redness of breast, with or without temperature rise; (2) ² Systemic inflammatory reaction, such as chills, headache and fatigue; (3) ² Body temperature greater than 37.3 °C; Or the results of routine blood tests showed that ² white blood cells (WBC) or neutrophils increased or the level of C-reactive protein increased. (4) Patients with positive milk culture ^[7]. Breast abscess is defined as a local infection with fluid accumulation in breast tissue ^[8]. A physical examination can generally detect the breast abscess's pain,

erythema, and stiffness. However, it is not always simple to palpate the lump, especially if it is positioned deep within a larger breast. Imaging studies are beneficial for breast abscess diagnosis, determining whether there are several small abscesses or a single defined cavity, and determining whether the abscesses are located or separated so as to assist in treatment plan formulation^[9].

A severe complication of acute mastitis during breastfeeding is breast abscess during lactation. The disease is associated with patient fatigue, pressure, blockage of the mammary duct, inadequate feeding times, oral abnormalities of infants (such as cleft lip or palate), local milk stasis, malnutrition of mothers, use of a manual breast suction device, community-acquired infection, breast injury, and poor diet, as well as delayed treatment of acute mastitis ^[10]. It is usually caused by staphylococcus infection caused by pathogenic bacteria such as streptococcus and/or Corynebacterium ^[11]. Breast feeding discontinuation (41%), breast fistula (11.1%), and readmission (50%) are prevalent among patients with the disease ^[4, 12]. In cases of breast abscess, the rate of cessation of nursing is 41%. In instances of breast fistula, the rate of cessation of nursing is very high (66.7 percent). In addition, fifty percent of postpartum Staphylococcus aureus breast abscess patients must be hospitalized again and administered intravenous antibiotics.^[12]. Consequently, the condition has a somewhat severe impact on mothers and infants and must be addressed promptly.

Breast abscess during lactation is often treated with antibiotics administered orally or intravenously, percutaneous aspiration (ultrasound-guided percutaneous puncture, fine needle puncture, vacuum-assisted biopsy, arthroscopic debridement and drainage, *etc.* ^[13-15]), and surgical incision and drainage ^[16] (**Table 2**). However, these procedures have limitations: although antibiotics were empirically administered, it was later discovered that many isolated bacteria were antibiotic-resistant ^[17]; therefore, the potential threat of antibiotic resistance dramatically enhanced the need for alternative therapies. Yan Li ^[30] found 1222 cases of Staphylococcus aureus (82.5%) in 1481 cases of breast abscess in lactation by bacterial culture of abscess puncture fluid. Among them, 962 cases (65.0%) were MRSA methicillin susceptible Staphylococcus aureus, 260 cases (17.6%) were

MRSA methicillin resistant *Staphylococcus aureus*, and 20 cases (1.4%) were *Staphylococcus epidermidis*. 260 strains of methicillin resistant *Staphylococcus aureus* (MRSA) were analyzed for drug sensitivity and resistance. It was found that 100% MRSA was resistant to penicillin, amoxicillin clavulanate and cephalosporins, 45% MRSA was resistant to tetracycline, 85% MRSA was resistant to clindamycin, and 82.9% MRSA was resistant to erythromycin. In most instances, when bacterial milk culture and drug sensitivity tests are performed for patients with breastfeeding mastitis and breast abscess, it was found that these bacteria are resistant to penicillin and cephalosporin antibiotics; therefore, the actual therapeutic effect of antibiotics is poor. As percutaneous aspiration, surgical incision, and drainage are all surgical procedures; they have the following side effects: influence of anesthesia on milk, separation of mother and baby, high cost, trauma and pain of patients, cessation of breastfeeding, and leaving local scars on the breast, *etc.* ^[18], therefore the development of traditional Chinese medicine and traditional Chinese medicine therapy is recommended. In this instance, the combination of Gualou Xiaoyong Decoction and painless breast opening manipulation resulted in favorable clinical outcomes for the treatment of breast abscess in lactation.

The Program Committee of the International Society of Nursing Medicine advises moms with breast abscesses to continue breastfeeding because there is no evidence that healthy breastfed infants are at risk when their mothers are infected (Amir and the Program Committee of the Society of Breastfeeding Medicine, 2014). In this case, we only stopped breastfeeding on this side of the breast for one day when the patient discovered pus in the milk on the first day of breastfeeding, and we allowed all patients to continue breastfeeding in the subsequent treatment process. We believe that continued breastfeeding can reduce breast milk stasis, which is conducive to disease recovery, and infants can get enough breast milk nutrition in the practice of many previous cases, as we have not found adverse effects. In this case, there was also no adverse reaction of the infants, such as nausea, vomiting, abdominal pain, abdominal distension, diarrhea, fever, *etc.*

Postpartum breast abscess is a common and intractable disease in clinical practice. In this case, the patient received a non-invasive treatment. On the second day of treatment, the breast mass of the patient was significantly reduced, the pain was significantly reduced, and the general asthenia was improved; All conscious symptoms disappeared after 3 days, the breast abscess disappeared after 12 days of treatment, and the inflammation image disappeared after 27 days of treatment. It was a relatively short treatment cycle for the treatment of breast abscess, and our treatment method was not traumatic. We only needed outpatient oral drug treatment, the patients didn't need hospitalization and surgery, and they had no pain. Paola Pilleri ^[19] and others reported that fine needle puncture was effective in the treatment of breast abscess, but it often required multiple puncture treatments, and patients felt pain and trauma, and they often need to be treated with antibiotics treatment. However, through milk culture, we found that most of the bacteria in the milk were staphylococcus and streptococcus, and these bacteria were often resistant to antibiotics (penicillin and cephalosporins) that could be used in lactation, so it was invalid to use these two types of antibiotics at this time. Aminoglycosides or quinolones antibiotics are often sensitive to this kind of bacteria, but these two kinds of drugs are not suitable for lactating women. Through our clinical observation, we found that traditional Chinese medicine has a definite effect on the treatment of lactating mastitis and breast abscess. Firstly, the patients with breast abscess in lactation are still in lactation, and the milk continuously secreted by the breast will aggravate the breast abscess. Therefore, good lactation techniques are needed to solve the problem of milk stasis. Secondly, the traditional Chinese medicine Gualou Xiaoyong Decoction has a good clinical effect through our clinical observation. After our clinical observation of more than 100 cases of lactation mastitis and 4 cases of breast abscess, we found that after the use of Gualou Xiaoyong Decoction and painless lactation manipulation, the breast lump and pain of the patients could disappear quickly, the skin redness disappeared, the body temperature dropped to normal, the white cell count and the percentage of neutrophils in blood routine returned to normal, and the changes of mastitis and breast abscess disappeared under B-ultrasound. In the

treatment of this case, after the patient's clinical symptoms subsided and the blood routine, CRP, PCT, and ultrasound returned to normal, the bacteria in the milk were always cultured (*Staphylococcus aureus* and *Staphylococcus epidermidis* alternated), leading us to hypothesize that there may be a disparity between the types and numbers of bacteria infecting the breast and the severity of the disease. Carmichael AR and Fetherston C also reported that there was an inconsistency between the bacterial load and the severity of lactation mastitis and breast abscess. Compared to the infection itself, the immune system's response to injury appeared to correlate more strongly with the severity of the sickness, and the bacteria were not sufficient to cause the disease on their own [20-21]. In addition, mastitis is frequently characterized by an absence of dangerous bacteria, prompting some clinical researchers to suggest the terms "infectious" and "non-infectious" mastitis [22-23]. Many women with potentially harmful bacteria on their skin or breast milk will not develop mastitis. However, many mastitis-afflicted mothers do not have pathogenic bacteria in their milk [3]. It is not unexpected that the recent Cochrane systematic review emphasized the uncertainty around the use of antimicrobial medicines in the treatment of mastitis in light of these findings. Therefore, the prophylactic use of antibiotics to prevent mastitis is ineffective [24], and there is not enough evidence to support the use of antibiotics to treat mastitis and breast abscesses [24]. According to some researchers, the host's inflammatory mediators are the primary cause of mastitis, and these same inflammatory mediators may also contribute to inadequate breastfeeding in clinical and subclinical mastitis. [25].

Gualou Xiaoyong Decoction is an often-prescribed treatment regimen in our department. It has a highly effective clinical effect in the treatment of lactation mastitis and lactation breast abscesses. It is composed of the following drugs: *bupleurum chinense*, *pericarpium trichosanthis*, *fructus arctii*, *luffa*, *lobelia*, *dandelion*, *red peony root*, *herb*, *peach kernel*, *coix seed*, *red bean*, *angelica*, *fried atractylodes macrocephala*, *honeysuckle*, and *forsythia suspensa*. In the prescription, *Bupleurum* and *Trichosanthes* peel are used to soothe the liver and regulate qi; *Stir fried Atractylodes macrocephala* with bran strengthen the spleen and stomach; *Arctium lappa* L., *Scutellaria barbata* L.,

dandelion, honeysuckle, forsythia suspensa L; Angelica, Paeonia lactiflora, and Peach Kernel cool the blood, nourish the blood, promote blood circulation, and remove blood stasis; Coix seed and adzuki bean detoxify and discharge pus; Luffa, grass and milk. The entire prescription has the effects of soothing the liver and stomach, dispersing phlegm, softening the body, eliminating heat, detoxification, and pus, and dredging the breast. Zhaojing Wu ^[26] have studied the Trichosanthes and Arctium Decoction (containing 12 Chinese medicines, including trichosanthes kirilowii, arctium fruit, trichosanthes root, scutellaria baicalensis, cape jasmine, forsythia, neysuckle, liquorice, dried tangerine peel, green tangerine orange peel, radix bupleuri, which are similar to the Gualou Xiaoyong Decoction in this study), and found that quercetin, luteolin, fisetin, kaempferol, and urushiflavin are the main active ingredients. Quercetin has anti-inflammatory, antioxidant and antifungal properties, and can inhibit NF- κ B signal pathway to enhance the transcriptional activity of NRF2-ARE, thus playing a role in controlling bovine mastitis; It can reduce the expression of inducible nitric oxide synthase (iNOS) and regulate the production of inflammatory precursor NO. Luteolin has significant systemic anti-inflammatory effect. It can regulate the TLR2 and TLR4 signal pathways induced by Staphylococcus aureus, and inhibit I κ B α And NF- κ B The phosphorylation of BP65 regulates the expression of MMP2 and MMP9 and prevents mastitis. Fisetin is widely used to regulate the long-term immune imbalance of human inflammation, which can activate SIRT1 and inhibit NF- κ B Activation of inflammatory pathway, thereby reducing TNF- α and IL-6 expression levels to control the occurrence of inflammation. Kaempferol can reduce IL-6, TNF and the expression of ANGPTL2 in cells to prevent the occurrence of mastitis in mice, inhibit NF- κ B Phosphorylation and I κ B P65 subunit κ B α , thus plays a therapeutic role in mastitis. Urushiflavin has good anti-inflammatory effect on nephritis, endometritis and airway inflammation *in vivo* and inflammatory skin disease *in vitro*. Dongyang Ye ^[27] found that the extract from Scutellaria baicalensis Georgi - Safflower - Dandelion - Honeysuckle had a dose-dependent antibacterial effect on Staphylococcus aureus, Escherichia coli, Streptococcus agalactis and Streptococcus agalactis.

Milk buildup is a significant factor in the incidence of mastitis during breastfeeding. The collected milk not only causes breast pain and discomfort and a decrease in milk volume but is also an excellent medium for bacterial growth, exacerbating and recurs breast inflammation [28]. Therefore, it is essential to empty the breast entirely. The non-painful breast opening method has a speedy impact, and the patient experiences no discomfort or negative effects. This technique combines the massage of distant acupoints along the meridians with local breast massage, which has a positive effect on breast opening; with the help of Gualou Xiaoyong Decoction, it can soothe the liver and stomach, expel phlegm, soften and firm the body, clear away heat, detoxify and expel pus, and promote lactation. The patients' clinical symptoms greatly decrease and diminish within a short time. The total amount of leukocytes, neutrophils, C-reactive protein, procalcitonin, and other inflammatory markers rapidly return to normal, and the flaky, low-echo region of the breast dissipates rapidly with ultrasound. Therefore, we consider this method to be a superior means of treating the disease and deserving of further clinical investigation.

CONCLUSION

The combination of Gualou Xiaoyong Decoction and painless breast opening manipulation has a positive clinical effect on breast abscess during lactation and has the advantages of a short treatment course, no effect on milk secretion, no effect on breast feeding, no toxic side effects, and no pain for patients. This method is worthy of further investigation..

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