

Analysis of Acne Mastitis from the Theory of Liver Loss and Catharsis

Jie Ma^{1,a}, Pengguang Xu^{2,b,*}

¹*Shaanxi University of Chinese Medicine, Xianyang, Shaanxi, 712046, China*

²*Affiliated Hospital of Shaanxi University of Chinese Medicine, Xianyang, Shaanxi, 712000, China*
^amj96714@163.com, ^b1443654553@qq.com

**Corresponding author*

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Abstract: This paper discusses the traditional Chinese medicine treatment of acne mastitis based on liver loss and catharsis. By analyzing the pathogenesis of acne mastitis, it is concluded that the main influencing factor of the disease is the liver loss and catharsis, and there is only one liver meridian stagnation heat syndrome in the textbook. Therefore, the disease is carefully classified and discussed based on liver loss and catharsis, and the main syndrome types of the disease are: liver qi stagnation, liver depression and blood stasis/liver depression and phlegm coagulation, liver meridian stagnation heat, positive deficiency and evil love; Through the differentiation and treatment of the disease, and combined with different external treatment methods, such as packet, Chinese medicine decoction external washing, incision and drainage, the clinical curative effect is clear, and the treatment effect is good, which has certain significance for the clinical treatment of the disease.

1. Introduction

Comedo mastitis is a chronic breast disease in traditional Chinese medicine, which often occurs in women's lactation and non pregnancy[1]. It is a chronic, bacterial inflammatory lesion of the breast. Clinically, the main manifestations are unilateral breast disease, nipple depression, nipple discharge, areola mass, breast skin swelling and pain, and non periodic pain, which can further develop into abscess, extrude lipid residue-like substances after breaking, and even break to form a fistula[2]. In modern medicine, it belongs to breast diseases such as plasma cell mastitis, granulomatous mastitis, and mammary duct ectasia[3].

2. Common Etiology, Pathogenesis and Treatment of Acne Mastitis

2.1. Pathogenesis of Modern Medicine

Modern medicine believes that acne mastitis is very similar to plasma cell mastitis, granulomatous mastitis, mammary duct expansion, and other diseases. Its pathogenesis is related to congenital nipple invagination, breast dysplasia, mammary duct injury, endocrine[4],

autoimmunity[5], smoking[6], and other factors. At present, the specific pathogenesis is not clear. The pathological basis is that the mammary duct is dysplastic, and fatty secretions in the dilated or blocked duct accumulate, block, and overflow, stimulating the surrounding mammary tissue to have an inflammatory response[7]. At present, antibiotics, hormones, and anti-tuberculosis treatment are mostly used in the treatment of Western medicine. In the later stage, surgical resection is used for treatment. These treatments often have poor curative effect, and the breast shape is easy to change after surgical treatment, which affects the beauty.(Figure 1 and Figure 2)

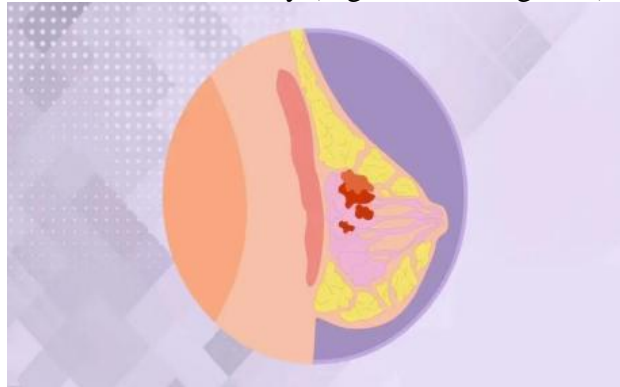


Figure 1: The pattern picture of plasma cell mastitis.



Figure 2: A real case picture of plasma cell mastitis.

2.2. Pathogenesis of Traditional Chinese Medicine

There is no record of comedo mastitis in the ancient books of traditional Chinese medicine. The disease was named only in the practical surgery of traditional Chinese medicine compiled by Gubohua in 1985. Traditional Chinese medicine classifies it as internal and external causes; the internal causes are congenital deficiency, acquired loss of nutrition, emotional internal injury, and improper diet; common are congenital nipple malformations, multiple births and lactation, depression, etc. External causes include phlegm dampness, exogenous six evils, etc. The most common factors are dysregulation of Ying and Wei, liver depression and qi stagnation, meridian block, qi stagnation and blood stasis, agglomerating, steaming rotten meat with damp heat and pus[8]. Traditional Chinese medicine has a good effect on the treatment of its disease. The common treatment is mainly based on syndrome differentiation and treatment, focusing on the combination of internal and external treatment. The main dialectics are heat accumulation in liver meridian and unclear residual toxin, and the commonly used external treatment methods are external application,

incision, drainage, etc.

According to the development characteristics of the disease, the first is that the condition is easy to repeat, the course of the disease is relatively long, and the symptoms in different periods are different; second, the treatment of the disease is more complex, with many concurrent symptoms, and the symptoms vary in different periods; therefore, the treatment of this disease should be based on the course of the disease and symptoms, and it is more important to distinguish the different symptoms of each period in order to get better curative effect. The author found with his tutor that most of the patients' symptoms in different periods were mainly liver diseases: emotional depression, too much breath, irritability, breast and chest pain, irregular menstruation, etc. The vast majority of patients with acne mastitis have congenital nipple invagination deformities. In addition, the liver meridian is originally the meridian of less Qi and more blood. The combination of the two causes the blockage of blood and Qi in the liver meridian, and the secretion remains in the mammary duct. In addition, the liver loses drainage, and the secretion in the mammary duct is more difficult to discharge. Therefore, the treatment needs to smooth the Qi mechanism and soothe the liver and regulate qi, therefore, we will analyze the treatment principle of the disease from the aspect of liver loss and diarrhea.

3. Theoretical Basis

3.1. The Perspective of the Physiological Function of the Live

The liver controlling catharsis can regulate qi, emotion, blood, and body fluid, and promote the spleen and stomach. 1. Regulating qi mechanism: the patency of Qi mechanism depends on the normal function of liver drainage. If the Qi mechanism is unblocked, the mammary collaterals will be unblocked. If the Qi mechanism is abnormal, the mammary collaterals will also be blocked, resulting in abnormal excretion, which will accumulate into blocks over time; the dysregulation of Qi mechanism will also cause accompanying symptoms such as chest co distension and tightness, flank rib abdominal pain, breast distension and pain. 2. Regulating emotion also depends on the catharsis of the liver. The role of emotion is closely related to breast disease. The length of the disease course and the severity of the disease will also change with emotion. Emotional depression is prone to qi stagnation, which will not only aggravate the disease, but also produce other comorbidities. Over time, it will lead to the loss of confidence in the treatment of this disease and depression. 3. Regulating the operation of blood and body fluids: the liver regulates the blood and body fluid of the whole body. If the function of drainage is normal, the blood of the whole body runs smoothly, the liver loses drainage, the blood is stagnant in the breast and contains phlegm gas to form breast lumps, and if the operation of body fluid is not smooth, the milk collaterals are blocked to form lumps. In a word, the main cause of this disease is the loss of liver drainage.

3.2. The Perspective of the Circulation of the Liver Meridian

The foot Juegan Yin meridian and the rest of the big toe nail from the hair, the circulation goes up into the pubic hair, bypasses the Yin apparatus, goes up into the lower abdomen to clip the stomach, passes through the diaphragm, and spreads in the thoracic association. From the point of view that the female nipple belongs to the liver and the breast belongs to the stomach, both the foot Jueyin liver meridian and the Foot Yangming stomach meridian are closely related to the development and lactation of the breast. If the meridians are unblocked, the breast will be full or lactation will be smooth during lactation, while if the liver and stomach meridians are blocked, the breast will be prone to diseases such as lumps and nodules. Therefore, acne mastitis is also due to the blockage of meridians to a certain extent.

3.3. The Perspective of Modern Social Environment

Modern social information is developing rapidly, and the pace of life is accelerating. Especially for women in the current era, they are facing great pressure in life and work, and their spirit is always in a tight state. Therefore, under the influence of the environment, the probability of women suffering from acne mastitis is also increasing, so everything that causes the disease is still rooted in emotional failure, and the liver Qi is lost.(Figure 3)

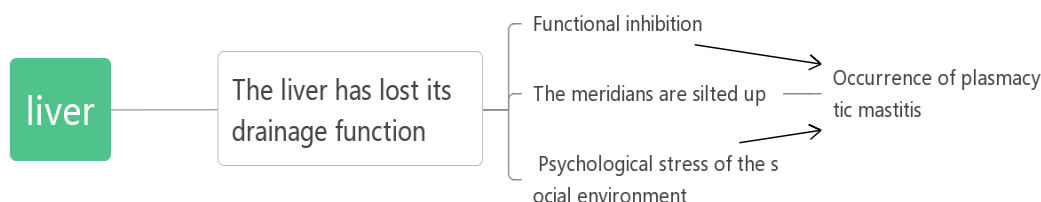


Figure 3: Mind map of plasma cell mastitis in the basic theory of traditional Chinese medicine.

4. Dialectical Classification and Treatment

(a) Initial stage: stagnation of liver qi; patients with breast distension or nipple discharge, acne like substance overflow, breast lumps of different sizes are slightly painful, good at rest, often accompanied by chest or abdominal distension, irregular menstruation, dysmenorrhea, or even amenorrhea. The tongue is light red, the moss is thin and white, and the pulse string or string is slippery. Therapeutic principle: Soothing Liver and regulating qi, relieving pain, and dispersing knot prescription: Chaihu Shugan powder

(b) Caking stage: liver depression and blood stasis/liver depression and phlegm coagulation: the patient's breast is locally swollen and painful, the mass is hard, often accompanied by depression or irritability, insomnia, chest pain or abdominal tingling, irregular menstrual cycle, dysmenorrhea, etc., the tongue is dark with petechiae, the coating is white or the tongue is red, the coating is white and greasy, and the pulse string or string is astringent. Treatment principle: Soothing Liver and relieving depression, activating blood circulation and resolving depression/soothing liver and relieving depression, and resolving phlegm and resolving depression prescription: Chaihu Shugan powder combined with Gualou Beimu decoction. Emphasis on blood stasis plus blood activating and Qi regulating drugs such as rose, Yuanhu, Yujin, etc., while the emphasis on phlegm resistance will aggravate Qi regulating and phlegm regulating drugs such as bergamot, citron, Platycodon, etc.

Purulent stage: Liver Meridian heat accumulation: the patient's breast is locally red, swollen, hot, and painful, the mass has wave motion, and it is hot when pressed, accompanied by fever, headache, dry stool, yellow urine, red tongue, yellow and greasy fur, and the number of pulse strings or slips. Treatment: soothe the liver, clear away heat, reduce swelling, and relieve pain. Prescription: Chaihu Qinggan Decoction plus Gualou Arctium decoction.

Fistula stage / dissipation stage: positive deficiency and evil Love: the patient's breast mass does not heal for a long time after collapse or incision and drainage, and the pus is thin and dripping, forming a fistula, which is easy to occur repeatedly, sometimes mild and sometimes severe, often accompanied by physical deficiency symptoms such as lack of strength, light or reddish tongue, thin or thin and yellowish fur, and thin pulse strings. Treatment: replenish qi and deficiency, and make Tuoli purulent. Chaihu Shugan powder and Tuoli Xiaodu powder (Table 1).

Table 1: Medical treatment of various types of plasma cell mastitis

Category	Cardinal symptom	Therapy
Stagnation of liver qi	The tongue is light red, the moss is thin and white, and the pulse string or string is slippery.	Soothing the liver and regulating qi, relieving pain and dispersing knot
Liver depression and blood stasis	The tongue is dark with petechiae, the coating is white, or the tongue is red, and the pulse string.	Soothing the liver and relieving depression, activating blood circulation and resolving depression
Liver depression and phlegm coagulation	The tongue is dark with petechiae, the coating is white and greasy, and the pulse string is astringent.	Soothing liver and relieving depression
Liver Meridian heat accumulation	Red tongue, yellow and greasy fur, and the number of pulse strings or slips.	Soothe the liver, clear away heat
Positive deficiency and evil Love	Light or reddish tongue, thin or thin and yellowish fur, and thin pulse strings	Replenish qi and deficiency, and make Tuoli purulent.

5. External Therapy and Other Therapies

In the treatment process, the combination of internal therapy and external therapy can shorten the course of disease[9], mirabilite can be applied externally during the caking period, and golden ointment can be used for treatment when the pus is not broken, incision and thread drainage can be used when the pus is broken but the pus is not flowing smoothly, and purslane decocting water can be used to scrub the external golden ointment when the pus is broken and superficial, (*Portulaca oleracea* belongs to the purslane family and is known as a "natural antibiotic"; it is cold in nature and sour in taste. It has the functions of cooling blood, detumescence, clearing away heat, and detoxification, and contains organic acids such as linolenic acid, linoleic acid, EPA, DHA, 3,4-dihydroxybenzoic acid, which have anti-inflammatory, antibacterial and analgesic effects[10]). Debridement and medical thread drainage are used in the fistula stage, and bifuxin can be applied externally in the dissipation stage and later stage to promote wound healing(Table 2).

Table 2: Surgical treatment of various types of plasmocellular mastitis

Category	Therapy
During the caking period	Mirabilite can be applied externally during the caking period
The pus is not broken	Golden ointment
The pus is broken but the pus is not flowing smoothly	Incision and thread drainage
In the fistula stage	Debridement and medical thread drainage
Dissipation stage and later stage to promote wound healing	Extra-coated ointment

6. Case

(a) Patient Li, 29 years old, first diagnosis: April 2, 2022. Chief complaint: swelling and pain of the left breast for 15 days and ulceration for 3 days. Current medical history: a hard mass in the areola of the left breast has been broken and painful. Color Doppler ultrasound of the breast in other hospitals (March 15, 2022): multiple hypoechoic areas in the left breast (abscess?) The left axillary lymph nodes were thickened; Puncture biopsy of the left breast showed (March 18, 2022): plasma cell mastitis of the left breast. Surgery was recommended by the other hospital, but the patient refused and did not receive treatment. Recently, the mass broke, so he came to see a doctor. Physical examination: bilateral nipples were congenitally sunken. There was a mass about 1 cm outside the left areola, which had been broken. There was no wave movement around it, and it was hot to touch. The patient complained that he was usually sulky, irritable, menstruation was often disordered, slightly febrile, headache, stool was slightly hard, urine was yellow, tongue was red, coating was yellow and greasy, and pulse string was few. TCM diagnosis: Acne, mastitis of the left breast; Western medicine diagnosis: left breast plasma cell mastitis. TCM syndrome differentiation: stagnation of heat in the liver meridian; (1) Internal treatment: soothe the liver, clear away heat, reduce swelling, and relieve pain. Prescription: Chaihu Qinggan Decoction plus Gualou Arctium decoction. Radix Bupleuri 12g, Rhizoma Cyperi 12g, Radix Rehmanniae 12g, Angelica sinensis 12g, Radix Paeoniae Rubra 12g Poria cocos 10g Atractylodes Macrocephalae 10g Forsythia suspensa 12g Radix Scrophulariae 12g Prunella vulgaris 12g Fructus Trichosanthis 20g Arctium lappa 15g Hedyotis diffusa 25g raw oyster 20g licorice 6G 7 doses, formula granules, 1 dose (2 grids) per day, 2 times a day, 1 grid each time; (2) External treatment: wash purslane in boiling water and apply golden ointment (take 100g purslane, put it into a casserole, add 1000ml purified water, soak it for 10 minutes, boil it over low heat for 30 minutes, filter the gauze into a clean container and cool it for standby)

Before applying the golden ointment externally every day, take a clean gauze and wet it with purslane water, scrub the broken area until the secretion is clean, and then spread the golden ointment on the clean gauze block and apply it on the sore surface once a day (more pus 2-3 times a day). Doctor's advice: keep in a good mood, wear loose and comfortable underwear, and return to the hospital a week later.

The patient's second diagnosis: on April 9, 2022, the patient complained to himself that he was depressed due to the aggravation of his condition recently, with slight chest pain, but the symptoms such as fever and headache were alleviated, the breast pain was relieved, the mass became soft, but the secretion increased, the pus was not easy to discharge, the second stool was adjusted, the tongue was red, the moss was yellow and greasy, and the number of pulse strings. The original prescription plus Yujin 12g saponin 12g Chuanxiong 10g, three herbs; 14 doses, formula granules, 1 dose (2 grids) per day, 2 times a day, 1 grid each time. The external treatment is the same as above.

Curcuma is a medicine for Qi in blood, which can not only regulate Qi but also remove blood stasis, so this medicine is added to help the original prescription soothe the liver; the two drugs of *Acanthopanax senticosus* and *Ligusticum chuanxiong* reflect the idea of Toutuo. One is to make the pus discharge as soon as possible, and the other is to make the sepsis run deep, to shorten the course of the disease and reduce the pain of patients.

Due to the long course of the disease, the patient's follow-up visits for many times were based on the original prescription. After 45 days, the patient's follow-up visit: the breast mass dissipated without pain and other symptoms, but the rupture still did not close, the pus was clear and thin, the second stool was ok, the tongue was light red, the coating was white and slightly greasy, and the pulse was stringed. The original recipe is to remove red peony, *Forsythia suspensa*, *Radix Scrophulariae*, *Prunella vulgaris*, and raw oysters, and add 20g *Astragalus membranaceus*, 6G

Angelica dahurica, 12g Paeoniae Alba and 12g Gleditsia sinensis. 14 doses, formula granules, 1 dose (2 grids) per day, 2 times a day, 1 grid each time. Cancel the above-mentioned external treatment method, and replace it with self-cleaning and then apply new pad gauze for bandaging. Doctor's advice: eat light, avoid spicy food, dress loose, and keep a good mood. Follow up for discomfort.

Through the addition and subtraction of drugs, the original prescription weakened the efficacy of dispersing nodules and detumescence, and enhanced the efficacy of Supplementing Qi and strengthening health, as well as the joint venture and drug care; this reflects the idea of paying attention to supplementary care in the later stage of the disease. The pus gradually subsided and the wound decreased after the patient continued taking medicine for 1 month; after reexamination on August 24, the patient's bilateral breasts were symmetrical, bilateral nipples were sunken, the left areola was slightly pigmented, and the pressure was not painful. No abnormality was found after the initial breast diagnosis. The patient recovered. Doctor's advice: keep a cheerful mood and exercise moderately.

Note: the patient had 162 days from the diagnosis of plasma cell mastitis (March 15, 2022) to recovery (August 24, 2022). At first, the patient did not pay attention to it, delaying the best treatment time and prolonging the course of the disease. In the early stage of the disease, the severity of the disease and its impact on life should be emphasized to the patient, and the patient should be informed to have a deeper understanding of the disease, and not blindly delay the disease, avoid the mental and life burden caused by aggravating the disease and prolonging the course.

7. Discussion

Up to now, there has been no clear cause of comedo mastitis. In the treatment of injury, it is only symptomatic treatment, and there is no standard to follow. In western medicine, surgical resection is the main method, but the incision recovery is slow and the recurrence rate is high. Multiple resections to avoid recurrence will cause great pain to patients and affect the beauty of the breast. Traditional Chinese medicine treatment has certain advantages. In principle, TCM dialectical internal and external treatment can not only reduce the fear of patients for surgical treatment, but also maximize the protection of breast appearance from change, and will not cause great damage to patients, and avoid the pressure caused by multiple relapses. Different doctors have different understandings of the etiology and pathogenesis of the disease, and the author believes that the most fundamental thing is to take liver loss and drainage as the general principle, subdivide the syndrome types according to different periods, select the bupleurum herbs for liver loss and drainage, symptomatically add and subtract, and then cooperate with different external treatment methods such as traditional Chinese medicine packet, traditional Chinese medicine decoction cleaning, incision and drainage. The results show that the curative effect is significant, shortening the course of the disease to the greatest extent, and reduce breast damage, patients are more likely to accept this regimen.

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