

Article

Mastitis in lactating women: A case report

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A B S T R A C T

Mastitis, or breast inflammation, is classified as either non-lactational or lactational. Mastitis that occurs during lactation is the most prevalent type. Worldwide, only 50% of women are able to breastfeed for six months. It could be the result of an inflammatory breast condition, such as puerperal mastitis or milk stasis, which in certain cases requires supplementation or stopping breastfeeding entirely. We describe a complicated case of a primipara patient who appeared three months after giving birth with lactational mastitis. In this review, we emphasize how crucial multidisciplinary teamwork using Midwifery care is to accurate diagnosis and successful treatment. We go over the usage of oral antibiotics and provide examples of the kind of client support needed to help patients heal and successfully breastfeed during the postpartum phase. Giving the mother the right care and guidance is therefore crucial since poorly managed mastitis can result in an early end to breastfeeding and cause suffering for both the mother and the child.

I. INTRODUCTION

The World Health Organization (WHO) advises exclusive breastfeeding for the first six months following delivery and for up to a year after that due to the well-established health benefits of this practice. Worldwide, only 50% of women are able to breastfeed for six months. It could be the result of an inflammatory breast condition, such as puerperal mastitis or milk stasis, which in certain cases requires supplementation or stopping breastfeeding entirely (WHO, 2023; Wockel et al., 2007).

Mastitis, or breast inflammation, is classified as either non-lactational or lactational. Mastitis that occurs during lactation is the most prevalent type. Periductal mastitis and idiopathic granulomatous mastitis (IGM) are examples of non-lactational mastitis. The most frequent cause of lactational mastitis is skin colonization by bacteria, specifically *Staphylococcus aureus*. Risk

factors for methicillin-resistant *S aureus* (MRSA) should be taken into account, as MRSA is becoming a more common cause of mastitis. *Bacteroides* species, coagulase-negative *staphylococci*, *Escherichia coli*, and *Streptococcus pyogenes* are further causal pathogens. A previous history of mastitis, nipple cracks and fissures, insufficient milk drainage, stress and sleep deprivation in mothers, tight-fitting bras, and the use of antifungal nipple lotions are risk factors for lactational mastitis (Blackmon et al., 2020).

Worldwide, between 1 and 10% of breastfeeding women get mastitis. A recent assessment, however, indicated that the incidence of mastitis might reach 33%. The incidence peaks in the initial weeks after giving birth and then steadily declines. Five to nine percent of non-lactating women get duct ectasia, also known as peri-ductal mastitis or dilated ducts associated with inflammation. A breast infection's consequence, mammary fistulae, affects 1-2 percent of mastitis patients (Boakes et al., 2018).

Numerous factors, such as obesity, diabetes mellitus, and smoking, have been related to an elevated risk for this condition. All of these concerns, meanwhile, have only been found through tiny case series reporting; epidemiological confirmation has not yet been obtained (Liu et al., 2017).

The clinical term "self-limiting" can be applied to lactational mastitis because most cases of the condition resolve on their own with self-management techniques like massaging the afflicted breast, feeding or expressing frequently enough to empty the affected breast, and applying cold compresses to reduce inflammation. On the other hand, some women need antibiotics to treat infections. Infectious mastitis can result in septicemia or a breast abscess if it is not adequately managed, which may require hospitalization and even surgery. It is possible to get mastitis more than once, and breastfeeding the same child might cause mothers to get lactational mastitis more than once. Because of the discomfort that mastitis causes, the worry that medications can contaminate the milk, or bad advice from medical professionals, women who develop mastitis may give up breastfeeding too soon. Mastitis may result in a possible loss of benefits for the infant's health in addition to increasing the mother's risk of more serious health issues (Wilson et al., 2020).

These inflammatory breast disorders associated with breastfeeding typically manifest within the first twelve weeks of a baby's birth and are the primary cause of early breastfeeding discontinuation. Changes come about in a cascade; at first, minor erosions brought on by the baby sucking lead to excruciating discomfort in the areolar and nipples. Anxiety expects an enjoyable breastfeeding relationship and causes the baby to empty the breast insufficiently. The mammary alveoli may then become stagnant as a result of inadequate breast emptying. The increase in intraductal pressure that results in this milk stasis intensifies discomfort and causes the milk duct epithelial cells to open up intercellular connections. After entering the connective tissue, breast milk causes a first sterile inflammation that is typically followed by a secondary bacterial infection. In order to avoid mastitis, it is probably helpful to optimize breastfeeding method. The mother should be informed of the potential causes of milk stasis and take precautions to avoid them (Wöckel et al., 2008; Pevzner and Dahan, 2020).

II. METHODS

This study used a case study methodology combined with the descriptive research method. In order to perform the case study, information about postpartum women' midwifery care for mastitis was gathered. The 16-year-old Mrs. "B" was the study's subject.

A 16-year-old G1P1 reported to her midwife at 3 Month postpartum. Her obstetrical history was relevant for one prior Vaginal Birth at home attended by midwife. The current pregnancy had been uncomplicated apart from gestational anaemia -managed with iron supplementation - with no prior history of breast disease or infection. At this visit she complained of left breast swelling, erythema, and pain, which was confirmed via physical exam by both the midwife and doctor. The patient was discharged with a course of Amoxicillin.

Following examination, there were numerous palpable masses along the left breast's lateral side; the nipple showed up within normal ranges and showed no signs of irritation or discharge. A checkup revealed that the contralateral breast was healthy. Blood culture, pathological examination of biopsy specimens is not performed due to limited facilities.

The first treatment strategy requires the use of the anti-inflammatory medication acetaminophen. The patient was eager to nurse her child because of her severe discomfort and the possibility of a long treatment period that would be increased by lactation.

After receiving medication for two weeks, the patient experienced less breast pain at this point, but the mass's size remained the same. It was advised against breastfeeding from the left breast because of the patient's severe symptoms and the underlying physiology of lactation. The patient decided to use formula to augment the infant's diet in addition to breastfeeding exclusively from the right breast.

III. DISCUSSION

This case report aimed at addressing the gap in the literature by providing an illustration of a lactational mastitis condition. Breast issues are not frequently managed by midwifery care providers.

It's important to recognize mastitis during lactation from galactocele, severe engorgement, breast abscess, clogged duct, and inflammatory breast cancer. Clinical signs of mastitis include fever (>38.5 °C), lethargy, and flu-like symptoms together with discomfort, swelling, and a warm, wedge-shaped region over the breast. It might or might not be accompanied by an infection. In the early stages, the appearance may be mild and show minimal clinical symptoms. In patients with an advanced infection, a substantial area of breast edema with overlaying skin erythema can be identified. Pain and swelling in the axilla may be linked to reactive lymphadenopathy. Predisposing variables include things like obesity, smoking, maternal malnutrition, illness in the mother or infant, improper baby placement, discontinuing breastfeeding, and cracked and irritated nipples (Omranipour and Vasigh, 2020).

Clinical signs are the basis for diagnosing mastitis; laboratory testing is not usually required. Because there are not enough facilities, blood cultures or pathological examinations of biopsy specimens are not done. For the diagnosis of mastitis, laboratory testing and other procedures are

not usually required or carried out. The World Health Organization's mastitis publication recommends breastmilk culture and sensitivity testing should be undertaken if the patient is allergic to common therapeutic antibiotics, the mastitis recurs and is hospital-acquired, or if there is no response to antibiotics within two days (Amir, 2014).

Frequent and efficient milk removal is the most crucial therapeutic measure in cases of milk stagnation at a deeper site in the breast tissue. Breastfeeding mothers more often is something that should be encouraged, especially for the breast that is ill. After feeding, pumping or manually expressing milk may help promote appropriate breast emptying and healing; massaging the sore spot toward the nipple facilitates proper breast emptying. Occasionally, mastitis-related decreased milk production in the inflamed breast or a change in the flavor of the milk cause an infant to refuse to nurse. The biochemical composition of milk is altered by mastitis, making the milk more salted. If the infant refuses to nurse or for any other reason the woman is unable to nurse the inflamed breast, she should pump or manually express the milk because stopping the milk removal process prematurely can result in the development of an abscess (Pevzner and Dahlan, 2020).

It is important to support patients in continuing to hand express, pump, or breastfeed. Breastfeeding from the left breast was not recommended due to the patient's acute symptoms and the underlying lactation physiology. Midwives in providing care, it is important to prepare for the transition of mothers. lowering the occurrence of problems and morbidity in mothers in order to reduce the rate of morbidity, and helping mothers prepare optimally for the period of transition to motherhood (Yulizawati et al., 2022).

Breastfeeding a healthy, term newborn from a woman who has mastitis does not appear to pose any risk to her. In order to reduce the chance of abscess formation, women who are unable to continue breastfeeding should pump or manually express their breast milk. Fluid mobilization is an alternative treatment for a swollen breast that attempts to encourage fluid outflow into the axillary lymph nodes. The mother lies back, and soft hand strokes begin down the skin's surface from the areola to the axilla (Amir, 2014).

The release of milk from the breast can be aided by applying a hot compress or taking a hot shower right before breastfeeding or suction. Any potential soreness or edema can be lessened by applying cold compresses in between breastfeeding sessions and after breastfeeding or pumping. Apart from the efficient evacuation of milk, the healing process can be aided by relaxation, proper nourishment, and adequate hydration. Since pain impedes the milk ejection reflex, it is advisable to encourage the mother to take analgesics. Antibiotic therapy should be initiated if, after 12 to 24 hours of beginning treatment, symptoms do not improve (Pevzner and Dahlan, 2020).

IV. CONCLUSION

Breast inflammation, or mastitis, is classified as either non-lactational or lactational. Mastitis that occurs during lactation is the most prevalent type. Breastfeeding mothers frequently develop lactational mastitis, which is characterized by inflammation of the breast tissue. In addition to a high fever and flu-like symptoms, such as chills and aches, the illness is excruciating and causes red, sore, hot, and swollen breast tissue. There is no widely recognized clinical definition, and it

is diagnosed symptomatically. There is a spectrum of mastitis symptoms, ranging from minor irritation to more serious illness. Giving the mother the right care and guidance is therefore crucial since poorly managed mastitis can result in an early end to breastfeeding and cause suffering for both the mother and the child.

REFERENCES

- Amir, L. H. Academy of Breastfeeding Medicine Protocol Committee. (2014). ABM clinical protocol# 4: Mastitis, revised March 2014. *Breastfeeding Medicine*, 9(5), 239-243.
- Blackmon, M. M., Nguyen, H., & Mukherji, P, Acute Mastitis, Treasure Island (FL) : StatPearls, 2020.
- Boakes, E., Woods, A., Johnson, N., & Kadoglou, N. (2018). Breast infection: a review of diagnosis and management practices. *European journal of breast health*, 14(3), 136.
- Liu, L., Zhou, F., Wang, P., Yu, L., Ma, Z., Li, Y., ... & Yu, Z. (2017). Periductal mastitis: an inflammatory disease related to bacterial infection and consequent immune responses?. *Mediators of inflammation*, 2017.
- Omranipour, R., & Vasigh, M. (2020). Mastitis, breast abscess, and granulomatous mastitis. *Diseases of the Breast during Pregnancy and Lactation*, 53-61.
- Pevzner, M., & Dahan, A. (2020). Mastitis while breastfeeding: Prevention, the importance of proper treatment, and potential complications. *Journal of Clinical Medicine*, 9(8), 2328.
- Wilson, E., Woodd, S. L., & Benova, L. 2020. Incidence of and risk factors for lactational mastitis: a systematic review. *Journal of Human Lactation*, 36(4), 673-686.
- Wöckel, A., Abou-Dakn, M., Beggel, A., & Arck, P. (2008). Inflammatory breast diseases during lactation: health effects on the newborn—a literature review. *Mediators of inflammation*, 2008.
- Wockel, A., Beggel, A., Gensch, M., & Abou-Dakn, M. 2007. Psychological stress and puerperal mastitis-possible pathophysiological mechanisms. *Current Women's Health Reviews*, 3(2), 123-127.
- World Health Organization, Nutrition, 2023, https://www.who.int/health-topics/breastfeeding#tab=tab_3
- Yulizawati, Y., Fitria, H., & Oktova, R. (2022). The Influence of Support System on the Readiness to Motherhood Transition in Padang Independent Midwife Practice. *Journal of Midwifery*, 7(2), 59-65.