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MANAGEMENT OF MASTITIS IN POST PARTUM: LITERATURE REVIEW

Susanti, Ulpawati, Novi Yulianti.
Universitas Batam, Departement of Midwife, Faculty Health Science
Email: shanty1107@univbatam.ac.id, ulpa.wati19@univbatam.ac.id, 1026078301@univbatam.ac.id

ABSTRACT

Mastitis is inflammation of the breast that may be caused by a bacterial infection. Infection is a phenomenon that often occurs in breastfeeding mothers, mastitis certainly requires immediate and appropriate treatment, and mastitis that is not handled properly can affect breastfeeding. This study aims to review the management of mastitis. Delayed, inappropriate and inadequate treatment of mastitis can lead to recurrence, more extensive breast lesions, and even tissue damage. Mastitis is most common in the second and third weeks postpartum, with most reports indicating that 74% to 95% of cases occur within the first 12 weeks. However, it can occur at any stage of lactation, including the second year. Mastitis and breast abscess occur in all populations, whether the mother is breastfeeding or not. The reported incidence varies from a few to 33% of breastfeeding women but is usually under 10%. The results show that clinical observation that mastitis is caused by stagnation of milk in the breast, and that efficient ejection of milk as it forms can largely prevent the condition (Gunther, 1958). Therefore, breastfeeding contests are the most important part of mastitis treatment, and in cases of mastitis, breastfeeding should still be given with the correct breastfeeding technique. Antibiotics and symptomatic treatment can make a woman feel better temporarily, but if the milk output is not corrected, the condition can get worse or even if antibiotics are given.

Keywords

Postpartum; Mastitis; Management

INTRODUCTION

Mastitis is an inflammatory condition of the breast that can be accompanied by infection. Inflammation of the breast during breastfeeding requires prompt and appropriate treatment. Without proper treatment, inflammation can lead to premature cessation of breastfeeding, which is considered the normative standard for infant feeding and nutrition. Based on the nutritional and immunological value of breast milk, recommendations from the American Academy of Pediatrics (AAP) and the World Health Organization (WHO) are exclusive breastfeeding until the age of 6 months (WHO, 2019).

Mastitis is a problem that is often found in breastfeeding mothers. It is estimated that about 3-20% of breastfeeding mothers can experience mastitis. There are two important things that underlie our attention to this case. First, because mastitis usually reduces milk production and is a reason for mothers to stop breastfeeding.

Second, because mastitis has the potential to increase vertical transmission in several diseases (especially AIDS). Most mastitis occurs within the first 6 weeks after the baby is born (most commonly in the 2nd and 3rd weeks), although mastitis can occur throughout breastfeeding even in women who are temporarily not breastfeeding (World Health Organization, 2000).

Awareness of inefficient milk ejection resulting from poor breastfeeding technique is an important underlying cause, but mastitis remains synonymous with breast infection according to many health professionals. They are often unable to help a woman with the condition continue to breastfeed (WHO, 2019).

The two main causes of mastitis are milk stasis and infection. Milk stasis is usually the primary cause, which may or may not be accompanied or develop into an infection. Gunther (1957) recognized from clinical observations that mastitis results from stagnation of milk in the breast.

Mothers who experience sore nipples, it will be an entry point for microorganisms to infect the breast. The habit of incomplete breast emptying process can cause stasis or breast engorgement which will then become a medium for the growth of microorganisms. The condition of the mother with fatigue can cause a decrease in the body's immune system, thus facilitating the occurrence of infection by microorganisms (IDAI, 2013). Without effective milk removal, non-infectious mastitis tends to progress to infectious mastitis, and infectious mastitis to abscess formation. Thomsen et al (1983) also correlated cell and bacterial counts with clinical findings, and found that it was impossible to ascertain from clinical signs whether or not infection was present.

Mothers who experience problems in breastfeeding will have an impact on exclusive breastfeeding mothers for their babies. One of the factors that influence the success of exclusive breastfeeding is the mother's physical factor. Mother's physical factors are related to the condition of the mother supports breastfeeding or not, such as fever, mastitis, and so on (Maharlouei, 2018)

The World Health Organization (WHO, 2015) states that the number of cases of breast infection that occurs in women such as cancer, tumors, mastitis, fibrocustic disease continues to increase, where breast cancer sufferers reach up to more than 1.2 million people are diagnosed, and 12% of them are diagnosed with breast cancer. breast infection in the form of mastitis in postpartum women (Sari et al., 2019)

A Cochrane review showed that the incidence of mastitis can be as high as 33% (Boakes et al., 2018). In Indonesia, it is estimated that there are 876,665 women diagnosed with mastitis. This shows that mastitis always increases from time to time (Efrizal, 2021). According to the East Java Provincial Health Office in 2018 there were 58% of postpartum mothers who experienced problems in breastfeeding, namely 23% experienced breast swelling, 13% sunken nipples, 9% sore nipples, 7% mastitis and 6% breast abscess so that breastfeeding on babies experience a decline (Rohmah et al., 2019).

Mother's lack of knowledge about the breastfeeding process can cause errors in breastfeeding positions which result in blisters on the mother's nipples. In addition, it also causes the process of releasing and releasing breast milk that is less than optimal, causing breast engorgement. Mastitis is one of the causes of early weaning in infants due to the pain and discomfort felt by nursing mothers. Lack of information about breastfeeding is considered as one of the causes of low knowledge of mothers about breastfeeding, causing mastitis (Permatasari et al., 2018).

Breastfeeding technique is an important factor compared to other risk factors that can increase the risk of mastitis (World Health Organization, 2000). The correct position and attachment of the baby to the mother's breast in breastfeeding techniques will reduce the possibility of problems in the breastfeeding process such as nipple blisters and mastitis in the mother (Haslan, 2020). Inappropriate breastfeeding techniques can result in problems with the breasts that occur during the breastfeeding process which are caused by the baby not suckling up to the areola (Potter, 2016).

Breastfeeding techniques can affect milk production, where if the breastfeeding technique is not correct it can cause sore nipples and make the mother reluctant to breastfeed and the baby rarely breastfeeds. It is increasingly recognized that poor breastfeeding technique resulting in inefficient milk production is an important cause of mastitis (Erliningsih et al., 2018). Indicators in the effective breastfeeding process include the correct position of the mother and baby (body position), proper attachment of the baby (latch), the effectiveness of the baby's sucking on the breast (effective sucking) (Rinata et al., 2016). Therefore always make sure the act of breastfeeding with the correct position and attitude. Another risk factor is the frequency of breastfeeding, it is advisable to breastfeed the baby as often as possible without a schedule because a healthy baby can empty one breast in about 5-7 minutes and the milk in the baby's stomach will empty within 2 hours, so it's best to breastfeed the baby at least every 2 hours (Erliningsih et al., 2018).

In addition to breastfeeding techniques, breastfeeding is the most important aspect of mastitis treatment, and in cases of mastitis breastfeeding is recommended to be continued. Antibiotics and symptomatic treatment can make a woman feel better temporarily, but if the milk output is not corrected, the condition may get worse or recur despite antibiotics. Another principle or management of mastitis treatment is the provision of antibiotic therapy, supportive counseling and symptomatic treatment (WHO, 2019). Based on the description above, researchers are interested in conducting a review of the management of mastitis in postpartum mothers.

METHOD

This study uses a qualitative approach (library research) by collecting data based on research results sought through publish or perish by searching through Google Scholar as many as 200 studies from 2012 to 2022 and filtering again according to current research studies, researchers then observe again so that it becomes material. The study qualitative approach is a method that is more relevant to be used in terms of observing and analyzing phenomena that occur.

RESULTS

Based on the results of research conducted by Hasanah et al (2017) entitled the relationship between breastfeeding techniques and the risk of mastitis, statistical test results were obtained. risk of mastitis in breastfeeding mothers in Kemuning Village, Arjasa District, Jember Regency (95% CI; p value 0.005). From the results of the analysis, the value of OR = 6.679, it means that breastfeeding mothers who have adequate breastfeeding techniques will have a higher risk of mastitis by 6.679 times compared to breastfeeding mothers who have good breastfeeding techniques. This is in line with the research of Rishel & Ramaita (2021) that there is a significant relationship between breastfeeding technique and the incidence of sore nipples,

where the better the mother's breastfeeding technique, the lower the incidence of sore nipples. Sore nipples can develop into mastitis if not treated properly.

Based on the results of Dewi (2021) research on the relationship between breastfeeding techniques and breast care practices with the incidence of breast milk dams at BPS Ponirah Margorejo Metro Selatan Metro City in 2017, it can be concluded, The results show that there is a relationship between breast care practices and the incidence of breast milk dams through the chi square test. p-value 0.015 < , (α=0.05). Of the 35 respondents who experienced breast milk damming, 14 respondents and 23 (65.7%) respondents had carried out the correct breastfeeding technique and 26 (75.0%) had correctly practiced breast care. So there is a relationship between breastfeeding techniques and breast care practices with the incidence of breast milk dams because it is less than the p-value of 0.05.

Research conducted by (Egbe et al., 2016) entitled Prevalence and Risk Factors of Lactation Mastitis in Three Hospitals in Cameroon: A Cross-Sectional Study found that 71% (174/245) of the respondents did not know breastfeeding techniques and did not practice the habit of breastfeeding. Standard breastfeeding. Similar results were also obtained from research conducted by Arista (2016), showing that from 34 respondents there were 19 (55.9%) respondents who had poor breastfeeding techniques.

This is in line with the research conducted by Aminah (2018) entitled The Relationship between Breastfeeding Techniques and the Incidence of Mastitis in Breastfeeding Mothers in the Work Area of Pustu Pojok City of Kediri in 2018 which stated that only 21.6% (8/37) of respondents had the correct breastfeeding technique, 32.5% had adequate breastfeeding techniques, and 45.9% had inadequate breastfeeding techniques. Research conducted by Hasanah et al (2017) also showed similar results, namely only 36.8% (21/57) of breastfeeding mothers who had good breastfeeding techniques.

According to research conducted by Cullinane et al (2015) stated that in the breastfeeding technique, the problem of attachment by the baby to the mother's nipple was the most common, namely as many as 45 respondents (64.3%).

The results of research conducted by Fauziah et al (2015) with the title Effectiveness of Supervised Breast Care on Prevention of Breast Swelling in Postpartum Mothers to 26 respondents found that there was a significant difference between the scale of breast engorgement in the supervised intervention group and the scale of breast engorgement in the control group that was not supervised (independent). In hospital. Maternity Jeumpa Pontianak and RS. Bayangkara Pontianak in 2014. This is shown from the results of the Mann Whitney test with p = 0.000, meaning that the significance value is less than 0.05.

There is no research on supervised breast care for postpartum mothers. According to Wahyuni, (2018), breast milk that is not smooth can be caused by the accumulation of milk and congestion which can cause blockages in the lymphatics and veins that occur on the third postpartum day. This situation can trigger breast swelling and eventually mastitis occurs. The best management for breast engorgement is prevention such as effective breastfeeding position and attachment, use of a supportive or unwired bra and breastfeeding indefinitely and as often as possible (Joan Crookston, 2013). Supervised breast care is carried out by providing health education and supervising mothers who have just given birth to perform breast care for 3 consecutive

days and will see the effect of breast care on breast swelling on the fourth day.

The results of the analysis of research conducted by Erliningsih et al (2018) with the title of the relationship between breastfeeding intervals and the incidence of mastitis showed that there were 12 (85.7%) mothers suffering from mastitis from 14 respondents with long breastfeeding intervals and 6 (26.1%) mothers suffering from mastitis from 23 respondents with short breastfeeding intervals. From the results of statistical tests obtained p-value = 0.001.

This is in line with the theory which states that breast milk that is not secreted adequately will cause lactation to be suppressed (experiencing inhibition) due to swelling of the alveoli and basket cells that cannot contract. If there is swelling, it will be difficult for the breast to be fed to the baby because the breast loops are more prominent and the nipples become flatter making it difficult for the baby to suck. Furthermore, breasts that experience swelling will experience complications in the form of breast obstruction which will lead to mastitis (Wahyuni, 2018).

This is also in line with the research revealed by Bugis (2007) regarding the relationship of breastfeeding risk factors with the incidence of mastitis in hospitalized patients. DR. Karyadi Semarang in 2007 which showed that breastfeeding was a risk factor for mastitis in patients hospitalized in hospitals. Dr. Kariadi Semarang. This is evidenced by the prevalence ratio value of 2.09 with a 95% confidence interval of 1.634 – 2.675 (Bugis, 2007).

Ensuring smooth expenditure is one of the essential treatments. Antibiotics and symptomatic treatment can make a woman feel better temporarily, but if the milk output is not corrected, the condition may get worse or recur despite antibiotics.

Prevention of the incidence of mastitis can be done by paying attention to risk factors. When the breast is full and swollen (engorgement), the baby usually becomes difficult to latch on properly, because the surface of the breast becomes very tense. Mothers are helped to express some breast milk every 3-4 hours by hand expressing or the recommended breast pump. Before expressing breast milk, massage on the neck and back can stimulate the release of the hormone oxytocin which causes milk to flow and reduces pain. The correct hand-expressing technique needs to be shown and taught to the mother so that the milking is effective. Expressed breast milk can be fed to babies using a cup or spoon. This breast engorgement needs to be treated immediately to prevent the occurrence of Feedback Inhibitors of Lactin (FIL) which inhibits the distribution of breast milk.

Incomplete emptying or compression of the ducts from tight clothing can cause breast milk to stagnate. Mothers are advised to immediately examine her breasts if she feels a lump, feels pain and redness. In addition, mothers also need to rest, increase the frequency of breastfeeding, especially on the problematic side of the breast and do massage and warm compresses in the lump area (IDAI, 2013).

Management of mastitis begins with improving the mother's breastfeeding technique. Good milk flow is important in the management of mastitis because milk stasis is a problem that usually initiates mastitis. Mothers are advised to breastfeed more often starting from the problematic breast. But if the mother feels very painful, she can start breastfeeding from the side of the healthy breast, then immediately transferred to the problem breast, when some of the milk has let down and the pain has reduced. Position the baby on the breast so that the chin or tip of the nose is where the

DISCUSSION

blockage is. This will help drain milk from the area (IDAI, 2013).

It is increasingly recognized that poor breastfeeding technique resulting in inefficient milk production is an important cause of mastitis (World Health Organization, 2000). Therefore always make sure the act of breastfeeding with the right position and attitude. Mistakes in attitude while breastfeeding cause ductal obstruction. Massage before lactation is one of the most effective measures to avoid blockages in the ducts. Using a pillow support while breastfeeding can also help make the breastfeeding position better.

The structure of the breast consists of three parts, namely the skin, subcutaneous tissue and the corpus mammae, the corpus mammae consists of parenchyma and stroma. Parenchyma is a structure consisting of lactiferous ducts, ducts, lobes and alveoli. There are 15-20 lactiferous ducts, each of which is divided into 20-40 ductule branches. Then the ductules branch again into 10-100 alveoli each ductulus so that it forms like a tree. So it is recommended to breastfeed the baby as often as possible without a schedule because a healthy baby can empty one breast in about 5-7 minutes and the milk in the baby's stomach will empty within 2 hours, so it's best to breastfeed the baby at least every 2 hours. If breast milk is not expelled adequately in long intervals, it will cause suppressed lactation (impaired) due to swelling of the alveoli and basket cells that cannot contract. If there is swelling, it will be difficult for the breast to be fed to the baby because the breast loops are more prominent and the nipples become flatter making it difficult for the baby to suck. Furthermore, breasts that experience swelling will experience complications in the form of breast blockage which will lead to mastitis.

There are 4 aspects of breast care performed. First, the use of the right bra. Breastfeeding mothers should avoid bras that are wired and elastic around the bra cups because they can suppress and prevent the duct or flow of milk, and do not use a bra during sleep. There are still some respondents in this study who use a wire bra in their daily life. The reason mothers use wired bras is because the only available bras at home are wire bras and haven't bought a special bra for breastfeeding. This reason could be due to the mother's low economic factor so that she cannot afford to buy a special bra for breastfeeding which is more expensive than a regular bra. Second, good breastfeeding position and attachment. There are several breastfeeding positions that can be used by mothers such as cross-cradle position, cradle-position, footbal position and side-lying position (Joan Crookston, 2013). Good attachment must also be supported by the right position of breastfeeding the baby. This theory is supported by the fact that occurred in the field at the time of the study that most of the mothers with good breastfeeding position and attachment, rarely experienced blisters or sore nipples. This situation was experienced by mothers, especially those in the intervention group, because every day these mothers received supervision and teaching if there were poor breastfeeding positions and attachments. Third, warm compresses before breastfeeding. Warm compresses are carried out before the mother breastfeeds for 15-20 minutes to stimulate milk flow and the letdown reflex (Mohrbacher, 2005).

Based on research conducted by Arora et al (2009) who examined the comparison of cabbage leaves with warm and cold compresses as a treatment for breast engorgement, it turns out that these two treatments are equally effective in reducing breast swelling and breast pain in postpartum women. However, warm and cold compresses are more effective than

cabbage leaves for relieving pain during breast engorgement. Different from Arora et al (2009), research conducted by researchers only used warm compresses which were carried out before mothers gave breast milk to their children, while warm and cold compresses in Arora et al (2009) were given to postpartum mothers who were experiencing breast swelling and The warm-cold compress is done alternately from hot to cold to stimulate and relieve swelling pain. Although there are differences in the implementation, the aim of the researchers doing warm compresses is to help stimulate milk flow and the mother's let-down reflex so that mothers who are on the first to third postpartum days can produce breast milk as soon as possible and babies can get exclusive breastfeeding. Fourth, manual removal of milk or breast pump when the breast is full. According WHO (2016), babies who find it difficult to get breast milk because the mother's breasts are swollen and hard can be removed manually or with a breast pump. Expression of breast milk is needed to maintain or maintain a milk supply. This is in line with research conducted by Whittlestone who performed milk removal for nursing mothers using a breast expresser. Breast expressers (breast pumps) are indeed more effective in removing or emptying breast milk from mothers who experience swelling. When compared to manual (by hand) dispensing of breast milk, breast pumps are indeed much more expensive. Dispensing milk manually by hand is indeed more economical and affordable than using a pump. However, when viewed in terms of energy and time, manually it takes longer to express breast milk and the mother has to use more energy to express the milk. This will make the mother tired quickly and most likely to give formula milk.

Various methods to help breastfeeding mothers who experience mastitis include helping the mother to increase the baby's attachment to the breast (correct breastfeeding technique), encouraging breastfeeding mothers to breastfeed often, as often and as long as the baby wants, without time limits. And if necessary, express breast milk by hand or with a pump or hot bottle, until the breastfeeding process can be continued.

CONCLUSIONS

The results of all the articles found that there are many ways in the management of mastitis, namely correct breastfeeding techniques, good breastfeeding positions and attachments. There are several breastfeeding positions that can be used by mothers such as cross-cradle position, cradle-position, footbal position and side-lying position (Joan Crookston, 2013). Good attachment must also be supported by the right position of breastfeeding the baby. Warm compresses before feeding. Warm compresses are carried out before the mother breastfeeds for 15-20 minutes to stimulate milk flow and the letdown reflex (Mohrbacher, 2005). Manual ejection of milk or a breast pump when the breast is full. According WHO (2016), babies who find it difficult to get breast milk because the mother's breasts are swollen and hard can be removed manually or with a breast pump. Expression of breast milk is needed to maintain or maintain a milk supply. This is in line with research conducted by Whittlestone who performed milk removal for nursing mothers using a breast expresser. Breast expressers (breast pumps) are indeed more effective in removing or emptying breast milk from mothers who experience swelling.

A possible cause of mastitis is failure to remove milk from the breast effectively; Therefore, it is important to understand how

babies express breast milk. To express milk efficiently and effectively, the baby needs to be properly latched on to the breast, and allowed to suckle indefinitely at the breast. Expenditure of breast milk should be regulated by the needs of the baby to suckle. If the baby's position is not correct, or if feeding time is limited, he or she will not be able to remove milk from the breast effectively or efficiently. Health workers can also provide education to mothers about breastfeeding techniques and breastfeeding according to the wishes of the baby.

SUGGESTION

It is recommended that in cases of mastitis, mothers are encouraged to continue breastfeeding their babies accompanied by proper breastfeeding techniques, in order to reduce damming in breast milk, but if there are sore nipples, it is better to use a tool to distribute breast milk to their babies and provide information on how to breastfeed correctly and how to do it. Lactation management is very important for the prevention of mastitis. Health workers as health service providers, especially midwives, provide education to mothers in maternal care during the puerperium or postpartum period.

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