

Severe Mastitis During Puerperium Period: A Rare Case Report

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Abstract:

Severe mastitis is infection and inflammation of breast parenchymal cells. There is non-lactating and lactational mastitis majorly seen in women. It includes the breast tenderness, pain in the breast, the swelling in breast, high fever, and breast abscess. Mastitis is condition that majorly leads to severe pain during breastfeeding and hamper mother child bonding. Antibiotics, analgesic and antipyretics are choice of treatment during mastitis. Breast mastitis can lead to local infection and cracked fissures in women’s breast.

Breast abscess is major symptom of severe mastitis which leads to entry of bacteria staphylococcus Aureus and negligence of breast care during pregnancy and postpartum period. Drug Ibuprofen is drug of choice to treat mastitis and Tab. Paracetamol is used to reduce high fever. Proper breast support, regular breast care, hand washing before and after breast feed should be used to prevent mastitis.

Mastitis is condition where inflammation occurs of breast parenchymal cells in women. It includes high fever, tenderness in breast, and pain in breast, fluid accumulation, swelling and feeling of discomfort. Mastitis is rule out with different investigation breast examination, Culture swab, CBC investigation and breast ultrasound.

Keywords-Mastitis, Lactation, Breast-feeding, Parenchyma

I. INTRODUCTION

Severe mastitis is a condition of infection and inflammation of breast parenchymal tissues. This infection leads to swelling, tenderness, pus formation, and severe pain. Mastitis is mainly seen in women who are lactating [1]. It occurs due to the poor and insufficient breastfeeding, and negligence of breast care during the ANC and PNC period. Mastitis leads to many clinical manifestations of severe pain, breast tenderness, high fever episodes, fatigue, thickening of breast mass, etc. Generally, mastitis causes due to the block of lactiferous ducts and the entry of infectious causes bacteria into breast vessels. Mastitis is a condition that majorly leads to severe pain during breastfeeding and hampers

mother-child bonding [2]. Mastitis is of two types these are non-lactation and lactation mastitis but the prevalence of lactation mastitis is very high [3]. Diagnosis of breast mastitis is done through breast examination and its sign and symptoms [4] Women with mastitis have severe breast pain and their breast is sensitive to touch [5]. Severe mastitis can be treated by providing antibiotics, removing excessive breast milk, and antipyretic medicines which will reduce the high fever[6]. Breast mastitis can lead to local infection and cracked fissures in women’s breasts [7]. The mastitis shows early sign and symptoms which is a dangerous sign during pregnancy. The breast becomes swollen, tender, sensitive, and hard to touch and the breast area becomes red and wedge shape breast lump which is having pain during touching. Mastitis is

a preventable condition that can be preventable through applying proper care of the breast and its hygiene.

II. Generally, mastitis can occur during lactational period but it can be occurring also during non- lactational time. The choice of treatment of mastitis depends upon the severity of sign and symptoms. Generally steroid and antibiotic treatment used to give to patient of mastitis. In surgical intervention needle aspiration and drainage used to perform to remove debris and degenerated cells and debridement procedure also used to perform during mastitis to remove necrosis and dead cells and tissues in breast. After surgical treatment proper measures should have to be follow is mandatory regular checkup and examination of breast is necessary to remove the infection and inflammation.

PATIENT AND OBSERVATION

PATIENT INFORMATION: A CASE OF 22 YEARS FEMALE WAS ADMITTED TO WITH THE CHIEF COMPLAINTS OF SEVERE BREAST PAIN, BREAST TENDERNESS, HIGH FEVER (102-DEGREE CELSIUS), AND BREAST ABSCESS FOR 4-5 DAYS ACCORDING TO BREAST EXAMINATION AND OVERVIEW OF SIGNS AND SYMPTOMS, SHE IS DIAGNOSED WITH SEVERE MASTITIS. SHE UNDERWENT LSCS ON 29/5/2022 AND DELIVERED A MALE BABY WEIGHING 3KG. AFTER ONE MONTH OF DELIVERY, SHE IS RE-ADMITTED TO THE HOSPITAL WITH SEVERE MASTITIS. THE PATIENT IS CONSCIOUS AND ORIENTED. THE DURATION OF MARRIAGE IS 1 YEAR, SHE BELONGS TO THE NUCLEAR FAMILY, IN HER FAMILY, THERE ARE ONLY TWO PERSONS AND HER HUSBAND IS THE BREAD-WINNER OF THE FAMILY. HER FAMILY STATUS IS A MIDDLE CLASS EVERY FACILITY IS AVAILABLE IN HER HOUSE. THE ANNUAL INCOME OF THE FAMILY IS 3 LAKH ANNUALLY. SHE MAINTAINS A GOOD SOCIAL RELATIONSHIP WITH EACH AND EVERY ONE AND HER BEHAVIOR IS GOOD TOWARD THE CAREGIVER. THE PATIENT IS NOT VEGETARIAN AND THE FREQUENCY OF TAKING MEALS IS THREE TIMES. SHE IS NOT HAVING ANY TYPE OF FOOD ALLERGY AND HAS NO HABIT OF CHEWING TOBACCO, SMOKING,

ALCOHOL, ETC. DURING PHYSICAL EXAMINATION PATIENT WAS UNHEALTHY, CONSCIOUS, THE BODY BUILDS MODERATE, AND HYGIENE GOOD.

CLINICAL FINDINGS: DURING PHYSICAL EXAMINATION, GENERAL PARAMETER HEIGHT IS 160 CM AND WEIGHT IS 60KG. VITAL SIGNS FEVER 102 DEGREES FAHRENHEIT, PULSE 75BPM, RESPIRATION 25BPM, BLOOD PRESSURE 130/80 MILLIMETER OF HG.

TIMELINE OF CURRENT EPISODE: SHE HAD A COMPLAINT OF SEVERE BREAST PAIN, BREAST TENDERNESS, HIGH FEVER (102 DEGREE CELSIUS) FOR 4-5 DAYS.

DIAGNOSTIC ASSESSMENT: IN INVESTIGATION COMPLETE BLOOD COUNT DONE IN WHICH HB IS 13.1MG/DL, MCV 89.3MG/DL, TLC 29800CUMM, PLATELETS 3.25 LAKHS/CUMM. BREAST USG DID AND USG'S IMPRESSION IS BREAST PARENCHYMA APPEARS AUTOGENOUSLY HYPERECHOIC IN THE RETRO AREOLAR REGION WITH FEWDILATED DUCTS.

DIAGNOSIS: ALL OF THE ABOVE FINDING AND PHYSICAL EXAMINATION AND IMAGING TEST CONFIRMED THE DIAGNOSIS OF SEVERE MASTITIS.
Therapeutic Intervention: In pharmacological management patient received Inj. Augmentin 1.2mg, Inj. Pantoprazol 40mg, Tab Dolo 650mg, Tab Iron, Tab Calcium, Protein powder, Inj. Diclophenac 2ml IM, Tab Myospaz.

Nursing care of severe mastitis, include excellent nursing care to patient which help to reduce pain and provide comfort and relaxment to women. Nursing care include, encourage mother to provide breast milk completely to baby, Advice women to wear loose bra, Advice women to take rest and sleep adequately which will help to promote mothers' wellbeing and comfort. Provide warm compresses before providing breast feeding, Provide cold compresses after providing feeding it will mainly help to reduce the sore nipple and reduce the pain, Educate mother about breastfeeding and examine the mother and baby position because to improper technique of breastfeeding leads to more nipple pain and discomfort during feeding [8]. Encourage mother to take adequate fluid to maintain hydration level. Provide comfortable devices such as side pillows,

blanket, hot compresses to mother during feeding for women's comfort and wellbeing. Provide detail information regarding breastfeeding and its advantage to mother and baby also. Provide rooming in and bedding in service to mother. Encourage mother to perform breast care and nipple care. Provide education to mother regarding the hand washing importance to avoid the infection [9]. Educate the women about technique of emptying breast milk because excessive breast milk during mastitis increases chances of formation of nodules in the milk. Emptying excessive breast milk is mandatory in mastitis [10]. Nurses should provide psychological support to women because this condition hamper on women's mind because it having chances to break the mother child emotional attachment. Encourage the mother to express her need and feeling regarding the disease condition. Encourage the patient to ask the question regarding patient condition. Provide diversional therapy to the women because sometimes spiritual therapy increases positiveness and hope of better prognosis. Provide privacy to women. Promote and encourage regular rooming in and bedding in to patient. Assess the pain level of patient with using pain score.

Proper follow-up care is essential to maintain after breast infection, all prescribed antibiotics should be taken in regular time without missing any dose. Temperature should be check thrice in day during mastitis and maintain proper hydration of body. Mastitis is preventable condition it can be prevent during the ANC period the breast care and nipple care should be done during pregnancy and after pregnancy. Both breast milk should be provided equally to baby. Prevent moisture of milk[11].

Follow up and outcome interventions: After receiving pharmacological treatment and aseptic dressing method patient was stable and infection was reduced. Patient health was good after one week of receiving antibiotic therapy and comprehensive care.

Informed consent: Written informed consent was obtain from the patient for the publication of this

Fig. 1Example of an image with acceptable resolution

Discussion

In the present case, patient having severe breast pain, breast tenderness and breast abscess which is characterized by pus formation and severe stabbing pain and after providing necessity treatment it gets cure after some weeks. In this case the patient health is control by providing accurate and relevant antibiotic therapy and comprehensive care which leads to early healing of inflammation.

Breast abscesses are a major symptom of severe mastitis which leads to the bacterial entry of staphylococcus Aureus and insufficient breastfeeding, prolonged breast problems. The first-line treatment for mastitis is providing regular antibiotics, dressing, antipyretics, excessive milk aspiration, etc. [12]. Ibuprofen is a drug choice during mastitis it helps to reduce edema and inflammation and tab. paracetamol was is given for reducing fever. A similar study revealed that proper and adequate breastfeeding and breast care can prevent breast mastitis during the lactational period. Proper breast support and regular breastfeeding can reduce the prevalence of breastfeeding [13].one study revealed that breast swab and breast milk swab is necessary to perform during mastitis and for severe mastitis, it is necessary to perform a breast ultrasound to rule out the abscess [14].

One study stated that one 35 years old American women having breast tenderness, warmth, severe pain and pus formation in breast. She completed the antibiotic therapy and steroid therapy but after some days again her symptoms is persist and she did ultrasonography of breast which showed negative for abscess but in another ultrasound result that there is formation of pus in her breast then needle biopsy is done which result that she is diagnosed with idiopathic granulomatous mastitis and after completion of 5 courses of antibiotics the sign and symptoms persist and then [15].

Conclusion

After taking regular and proper treatment mastitis can be treated. Mastitis can be prevented by providing equal and regular breastfeeding, drinking plenty of fluid to avoid dehydration, washing breasts with clean water, maintain regular hygiene, etc. The breast should be emptied to avoid breast engorgement [16]. After undergoing regular investigation and treatment mastitis can be treated. Mastitis is condition which also treated with performing surgical management needle aspiration and drainage which is removal of excessive milk, pus out of breast. Mastitis occurs due to various bacteria and also negligence of breast during pregnancy and after pregnancy. Breast care and proper regular breastfeeding is important and essential to avoid and prevent any type of breast infection which is very dangerous during pregnancy and postpartum period. Mastitis is condition of having severe stabbing pain in breast feeling of heaviness and poor bonding with newborn due to severe and throbbing pain. This condition creates the lots of psychological burden of

women who is suffering from this condition. Mastitis can be treated with both medical and surgical management/intervention but regular follow-up and proper antibiotic is needed during this condition. During Antenatal and postnatal period breast care criteria is essential to follow-up.

Competing interest

The authors declare no competing interests.

Author's contributions

All authors have read and agreed to the final manuscript distribution.

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