

## Neonatal Breast Abscess: A Preventable Condition

Sarojini P Jadhav<sup>1</sup>, Vinod L Gundami<sup>2</sup>, Syed Faiyaz Ali<sup>3</sup>, Harshad Chavan<sup>4</sup>

**Author's Affiliation:** <sup>1</sup>Professor and Head, <sup>2</sup>Junior Resident 3<sup>rd</sup> year, Department of Surgery, <sup>3</sup>Associate Professor, Department of General Surgery, Government Medical College and Hospital, Jubilee Park, Aurangabad, Maharashtra 431001, India.

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### Abstract

Neonatal mastitis is an uncommon condition which can be complicated with local abscess formation. Here is a case reporting of unilateral breast abscess in a 16-day old term female neonate caused by *methicillin-resistant Staphylococcus aureus* [MRSA], treated with antibiotics and surgical drainage. This report was to emphasize the health education to readers regarding the prevention of breast abscess formation.

**Keywords:** Neonatal breast enlargement; Neonatal mastitis; MRSA.

### Introduction

Neonatal mastitis is a preventable and curable uncommon condition, affects full-term neonates, commonly females than males, complicating the normal physiological neonatal breast enlargement, diagnosed by history, examination and by echography in early stages and later formation of pus is almost diagnostic. Most commonly caused by *Staph aureus* bacteria, usually methicillin resistant. Adequate antibiotic course and surgical drainage if needed can prevent complications.

### Case Report

A 16-day old full-term female neonate presented

with complaints of swelling over left breast increasing in size associated with pus discharge with no history of refusal to feeds. On examination neonate was afebrile, with good activity, with 4 × 4 cm swelling in left breast involving nipple areola complex with local inflammatory signs with active pus discharge (Fig. 1). Under general anesthesia circumareolar incision taken (Fig. 2), and pus drained with antibiotic coverage of amoxicillin and clavulanic acid empirically for 2 days and then same combination syrup for next 5 days. Pus culture sensitivity report *s/o methicillin resistant Staph aureus* (MRSA). Discharge from the wound decreased gradually. On postoperative day 7 neonate had a healed wound (Fig. 3).



Fig. 1: Left breast abscess.



Fig. 2: Circumareolar incision.

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**Corresponding Author:** Vinod L Gundami, Junior Resident 3<sup>rd</sup> year, Department of Surgery, Government Medical College and Hospital, Jubilee Park, Aurangabad, Maharashtra 431001, India.

E-mail: [vinodlg24@gmail.com](mailto:vinodlg24@gmail.com)

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Fig. 3: Healed wound on postoperative day 7.

## Discussion

Neonatal breast enlargement is a self-limited common physiological finding (70%),<sup>3,8</sup> due to fall in the level of maternal estrogen at the end of pregnancy which triggers the release of prolactin from the pituitary gland of the newborn<sup>7,8</sup> which is independent of sex.<sup>5</sup> Neonatal mastitis is an infection of breast tissue, common in full-term neonates as preterm have underdeveloped breasts,<sup>2</sup> common during second week of life.<sup>1</sup> with sex ratio female: male = 2:1.<sup>3,8</sup> Large study of Talat Masoodi et al. stated that neonatal mastitis is usually local and unilateral, caused by squeezing breast to remove the milk (witch's milk) with spread of bacteria from skin to the breast parenchyma through the nipple. Local inflammatory signs with or without pus discharge with rarely systemic signs will be the presentation.<sup>4,8</sup> It also showed that Gram staining of the discharge was positive in 60% of cases with *Staphylococcus aureus* as the most common causative organism (83–86%),<sup>1,3-5,7,8</sup> as shown in most of the studies. If left untreated, rarely lead to cellulitis, osteomyelitis, brain abscess and sepsis.<sup>2,8</sup> The local echography can be used to differentiate local mastitis and abscess formation.<sup>2,3</sup> Spontaneous drainage of pus may or may not cure, and can affect developing breast bud and distorted.<sup>1,8</sup> Most of the studies reported that mastitis usually resolves with antibiotics, but abscess needs needle aspiration or incision and drainage.<sup>6,7</sup> Educating the parents and caretakers

regarding the condition will decrease the habit of squeezing neonate breast for witch's milk, which prevents the formation of breast abscess and distortion of future breast tissue.

## Conclusion

Neonatal mastitis is a preventable and curable uncommon condition, but with possible breast deformity. Local echography can be helpful in early stages with only mastitis, which will resolve with antibiotics alone, but abscess needs surgical intervention for effective cure. Proper health education to caretakers will prevent the abscess formation and distorted future breast.

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