# BREAST ABCESS INCIDENCE IN SURGICAL DEPARTMENT KHYBER TEACHING HOSPITAL, PESHAWAR

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## ABSTRACT

**Objective:** To know the incidence of breast abcess in lactating mothers.

**Design:** Cross sectional prospective.

**Setting:** Surgical department Khyber Teaching Hospital Peshawar.

**Sample size:** 105 patients with breast abcess in lactating mothers admitted to surgical department between March 2013 to December 2013.

**Results:** 7.5% were age of 15-20 year, 38.75% were having age of 20-25 years, 32.5% were age of 25-30 years, 15% were the age of 30-35 years and 6.25% were having age of 35-40 years. 2.5% were affected in first 10 days, 35% in 10-20 days, 37.5% in 20-30 days, 15% in 30-40 days and 10% in more than 40 days. 75% were primipara and 25% were multipara. 56% were affected in right breast and 44% in left breast. 43% affected in upper-outer quadrant,25% in upper-inner quadrant, 16% in lower-inner quadrant,10% in lower-inner quadrant and 5% in sub-areolar region. 86.25% had Staphylococcus aures,5% had Staphylococcus albus, 5% had E.coli,2.5% had Pseudomonas aeroginosa and 1.25% had Proteus mirabilis.

**Conclusion:** Mostly young primipara lactating mothers were affected in upper half of breasts with Staphylococcus aureus in early days of feeding.

## INTRODUCTION

Breast abcess is a significant problem in females of reproductive age especially in low socioeconomic population because of unhealthy lifestyle and lack education[1,5]. This is in turn leads to formula milk for their babies which results in gastroenteritis.

Breast abcess in more common in lactating breasts and mostly affect the superior half of the breasts[4]. Breast abcess do occur in any age especially in diabetics and immune-compromised individual. This can mimic inflammatory carcinoma of breast and this should be excluded by triple assessment especially in older age group. Staphylococcus aureus is the main culprit organism found in breast abcess cultures of lactating mother as compared to non-lactating breast abcess in which other organism can also be involved[7,8,13,14,15]. Breast abcess can range from small cavity with minor skin changes to full blown overlying skin necrosis[6,7]. Accordingly management differs from case to case like blind aspiration; ultrasound guided aspiration, incision and drainage and in some cases may need skin grafting[6,9].

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This condition usually occurs in early days of lactation but can occur anytime during the lactation period[3,5]. Mothers are often scarred of feeding their babies and are forced to use artificial milk formula or even use animal source to feed their infants. Often their infants become malnourished because formula milk is often expensive. Such practice of feeding prone their infants to malnourishment, decreasing immunity, developmental delay, serious gastroenteritis and even death of the infants[9,10,12].

As it is a well-known fact there is no alternative to breast milk, the implications and results on babies are just clear in using other tools of feeding the infants[6,12].

The objective of this study was to found out the incidence of breast abcess in surgical department of Khyber Teaching Hospital Peshawar and to sort out the best ways of its management.

## CLINICAL MATERIAL AND METHODS

Informed consent for study was obtained and ethical issues were solved. This study was conducted on 105 lactating mother presented with clinical sign and symptoms of breast abcess between March 2013 and December 2013. All patients underwent breast ultrasonography to confirm diagnosis and quantify the abcess volume. Other base line investigations were performed. Anesthesia fitness was taken. After informed consent all patients were subjected to open incision and drainage under general anesthesia, on the same day of admission according to ward protocol. This patient remained admitted till their culture and sensitivity report

comes. Pus was sent to single reliable laboratory all the time for culture and sensitivity. All lactating mothers of any age and parity were included presented any time to surgical department for management. Non-lactating mothers and patients with local or general co morbid conditions were excluded from this study. All the data was collected on designed Performa. Post-operatively all patients were started on tablet Bromocriptine 2.5mg BID for ten days to prevent milk fistula. At the end we were left with remaining 80-patients, on which we concluded our study. Those patients who lost to follow-up and discharge on will (DOW) , leave against medical advice (LAMA)with no culture and sensitivity report also excluded . In this study we lost 25-patients and excluded from study. Data was entered and analyzed in SPSS program version 16.0.

## RESULTS:

Six patients (7.5%) were having age of 15-20 years. Most of the patients in our study were having age of 20-25 years (38.75%). Another major group were having ages of 25-30 years (32.5%). 12 patients (15%) who develop breast abcess were having ages of 30-35 years (15%), five patients (6.25%) were the age group of 35-40 years. While no patients above 40 years.

Two patients (2.5%) presented in the first ten days of delivery while 28 patients (35%) came within first three weeks of their delivery. Further thirty patients (37.5%) presented within 30-days of delivery. Twelve patients (15%) presented within 40-days and eight patients (10%) were delayed till after 40-days post -delivery. Out of eighty patients, sixty patients (75%) were primi-gravida and twenty patients (25%) were multi-Para. A total of forty-five patients (56%) were having abcess in their right breasts and thirty-five patients (44%) were affected in their left breasts. Of all them, thirty-five patients (43%) affected in their upper-outer quadrant of breasts, twenty patients (25%) were having abcess in upper-inner quadrant of breasts. Thirteen patients (16%) had lower-outer quadrant abcess and eight patients (10%) had lower-inner quadrant of breast. While sub-areolar area was affected in four patients (5%). The breast in breast abcess were mainly colonized by staphylococcus aureus , sixty-nine patients (86.25%). Four patients (5%) had Staphylococcus albus and same number of patients (four patients; 5%) had grown Escherichia coli. While two patients (2.5%) had culture of Pseudomonas aeroginosa and still one patient (1.25%) result showed Proteus mirabilis.

## DISCUSSION

Breast abcess is a significant problem in lactating mothers having ages between 20-30 years in our study but in other study this age usually above 30 years[3, 4, 5]. The reason may inexperience in feeding methods and lack of education. This cause many issues not only affecting her but also her family.

**Table 1: Age of the patients (total patients=80)**

| Age Of Patient | Number Of Patients | %Age Of Patients |
|---|---|---|
| 15-20 | 6 | 7.5% |
| 20-25 | 31 | 38.75% |
| 25-30 | 26 | 32.5% |
| 30-35 | 12 | 15% |
| 35-40 | 5 | 6.25% |

**Table 2: Post Partum Day (Total Patients=80)**

| Post-Partum Day | Number Of Patients | %Age Of Patients |
|---|---|---|
| 1-10 | 2 | 2.5% |
| 10-20 | 28 | 35% |
| 20-30 | 30 | 37.5% |
| 30-40 | 12 | 15% |
| MORE THAN 40 | 8 | 10% |

**Table 3: Parity Of Patients (Total Patients=80)**

| Parity | Number Of Patients | %Age Of Patients |
|---|---|---|
| Primy-Para | 60 | 75% |
| Multi-Para | 20 | 25% |

**Table 4: Location Of Breast Abcess (Total Patients =80)**

| Breast / Quadrant | Number Of Patients | %Age Of Patients |
|---|---|---|
| Right Breast | 45 | 56% |
| Left Breast | 35 | 44% |
| Upper outer | 35 | 43% |
| Upper inner | 20 | 25% |
| Lower outer | 13 | 16% |
| Lower inner | 8 | 10% |
| Subareolar | 4 | 5% |

**Table 5: Organism Causing Breast Abcess (Total Patients=80)**

| Orgnasim | Number Of Pateints | %Age Of Patinets |
|---|---|---|
| Staphylococcus aureus | 69 | 86.25% |
| Staphylococcus albus | 4 | 5% |
| Escherichia coli | 4 | 5% |
| Pseudomonas aeroginosa | 2 | 2.5% |
| Proteus mirabilis | 1 | 1.25% |

Most of patients in our study were having their first baby and almost same result in other study[4, 9, 10]. Again because of lack of experience and education about feeding methods they were prone to develop breast abcess frequently. Also in our study most patients (72.5%) develop breast abcess from 10-30 days after the delivery but showed the occurrence mostly after 50-days of the delivery[3,5].

We have shown that mostly (86.25%) had Staphylococcus aureus in the cultures of breast abcess while others showed (80-100%) positive culture for Staphylococcus aureus. The infant start colonizing this microorganism after first week of their life and this transmit via cracked nipples and causing lactating mastitis and breast abcess[7, 8, 13, 14].

Our study showed that the upper half of breast is affected mainly (68%) in breast abcess which also a favorite area for carcinoma of breast. Almost same finding noted in other study[6, 8, 9, 11, 12]. Sometime causing diagnostic dilemma and leads to wrong management in some cases. Biopsy should be taken from abcess cavity to rule out carcinoma[6, 11].

## CONCLUSION

Breast in lactating breast is a significant issue in young primipara especially of low socioeconomic class. It needs timely proper evaluation and management along with patient education and support. Abcess needs to be aspirated or incision and drainage as well as biopsy of the cavity wall should be done to exclude malignancy. We should discourage un-judicial use of counter- sale antimicrobials and should be treated according to sensitivity.

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