



STUDY OF INFANTS DEATHS AND PRE LACTEAL FEEDING PRACTICES USING VERBAL AUTOPSY AS A TOOL IN DEHARADUN

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ABSTRACT

Background: In many countries across the world, the practice of giving pre lacteal feed to new born babies especially in India even before lactation has been seen as a common cultural practice which results in many complications. This study was conducted to see any relation between pre lacteal feeding and infant deaths in the target population.

Methodology: The survey was done on all the house of the deceased children residing in our field practice areas by visiting their houses.

Results: Our study shows that out of 54 infants, 32 (59.2 %) had been given pre lacteal feeds. While 22 (40.7 %) had not received any pre lacteal feeds out of these 32 deceased children almost 50 % expired during the neonatal period.

Conclusion In our present study it was observed that large number of newborns can be saved if prelacteal feeding practices are stopped.

Key words Breast feeding, colostrum, pre lacteal feeds.

BACKGROUND

Prelacteal feeding is giving liquids or foods other than breast milk prior to the establishment of regular breastfeeding. It deprives the child valuable nutrients, protects colostrum and exposes the newborn to the risk of infection¹. Furthermore, prelacteal liquid is given with a finger or a spoon often while the child is asleep or crying, and there is a danger of aspirating the fluid into the air passages and lungs. Thus, this feeding process reduces the practice of exclusive breast feeding which can be dangerous to the child and may even result in death^{2,3}. A lack of exclusive breastfeeding contributes to over a million avoidable child deaths each

year. Globally, less than 40% of infants less than six months of age are exclusively breastfed^{4,5}. Every day, 3000 - 4000 infants die in the developing world from diarrhea and acute respiratory infections because they are given inadequate amounts of breast milk and were introduced pre-lacteal feeding⁶. Breastfeeding has the potential to save neonatal, infant and young child lives and to reduce morbidity⁷. It is ranked as one of the safest and most efficient health interventions to achieve the millennium development goal 4 (MDG4): reduce child mortality⁸. Breastfeeding is one of the most effective ways to ensure child health and survival. If every child was breastfed within an hour of birth, given only breast milk for their first six

months of life, and continued breastfeeding up to the age of two years, about 800 000 child lives would be saved every year. Globally, less than 40% of infants under six months of age are exclusively breastfed. Adequate breastfeeding counseling and support are essential for mothers and families to initiate and maintain optimal breastfeeding practices WHO (2012)⁹.

METHODOLOGY

The study was undertaken for one year in the field practice areas of department of community medicine Himalayan institute and Hospital Trust Dehradun after taking approval of institutional ethical committee. The total population registered under Rural Health Training Centre (Rajeev Nagar) & Urban Health Training Centre was 12,588 and 12,930 respectively out of which infants were 418 at RHTC and 493 at UHTC.

All infant deaths except still births registered with Rural and Urban Health Training Centre were included in the study. When an infant died, the mother or the respondent was questioned in details about the symptoms of the child prior to death. A detailed history from the time of birth of the baby till his / her death was elicited from the mother / care taker using verbal autopsy as a tool

developed by WHO¹⁰. The information so collected, was first coded and then entered in the computer. The analysis was done by using SPSS software. Appropriate statistical methods were applied as per requirement.

RESULTS

Out of 54 infants, 32 (59.2 %) had been given pre lacteal feeds (Table 1). While 22 (40.7 %) had not received any pre lacteal feeds out of these 32 deceased children almost 50 % expired during the neonatal period.

Out of 83 deceased children 31 (37.3 %) were those whose breast feeding was initiated after 24 hours which was 19 (48.7 %) in rural area and 12 (27.3 %) in urban area respectively. In contrast to this 24 (28.9 %) were those who's breast feeding started within 30 minutes they were 23.1% rural area and 34.1 % urban area respectively 16(19.3 %) were those whose breast feeding was not started due to one or other reason they were 17.9 % and 20.5% in rural and urban area respectively (Table 2).

It is obvious from the table 3 deceased children's mother 61(73.5 %) were illiterate .Out of these 61, 18(29.5%) started breast feeding within 30 minutes. 25(41.0 %) started breast feeding after 24 hours.

Table 1: Distribution of deceased children by age, colostrums and pre lacteal feeding (n=54)

| Child age | Colostrums given | | | Pre lacteal | | |
|---------------|------------------|-----------|--------------|-------------|-----------|--------------|
| | Yes (n=14) | No (n=40) | Total (n=54) | Yes (n=32) | No (n=22) | Total (n=54) |
| 0 - 6 days | 4 (28.6) | 23 (57.5) | 27 (50) | 12 (37.5) | 15 (68.2) | 27 (50) |
| 7 - 28 days | 4 (28.6) | 1 (2.5) | 5 (9.3) | 3 (9.4) | 2 (9.1) | 5 (9.3) |
| 29-< 365 days | 6 (42.8) | 16 (40) | 22 (40.7) | 17 (53.1) | 5 (22.7) | 22 (40.7) |

Figures in parenthesis indicate percentage.

Table 2 : Distribution of deceased children by initiation of breast feeding and place of residence

| Initiation of breast feeding | Rural (n=39) (%) | Urban (n=44) (%) | Total (n=83) (%) |
|------------------------------|------------------|------------------|------------------|
| < 30 minutes | 9 (23.1) | 15 (34.1) | 24 (28.9) |
| 30 min. - < 12 Hrs. | 2 (5.1) | 5 (11.4) | 7 (8.4) |
| 12 - 24 Hrs. | 2 (5.1) | 3 (6.8) | 5 (6) |
| >24 Hrs | 19 (48.7) | 12 (27.3) | 31 (37.3) |
| Breast feeding not started | 7 (17.9) | 9 (20.5) | 16 (19.3) |

Table 3: Distribution of deceased children by initiation of breast feeding and education of mother

| Initiation of breast feeding | Illiterate (n=61) | Just Literate (n=3) | Primary (n=6) | Junior high school (n=6) | High school (n=4) | Inter-mediate (n=3) | Total (n=83) |
|------------------------------|-------------------|---------------------|---------------|--------------------------|-------------------|---------------------|--------------|
| < 30 minutes | 18 (29.5) | 2 (66.7) | 1 (16.7) | 0 (0) | 2 (50) | 1 (33.3) | 24 (28.9) |
| 30 min <12 hrs | 6 (9.8) | 1 (33.3) | 0 (0) | 0 (0) | 0 (0) | 0 (0) | 7 (8.4) |
| 12 - 24 hrs | 3 (4.9) | 0 (0) | 0 (0) | 2 (33.3) | 0 (0) | 0 (0) | 5 (6) |
| >24 hrs | 25 (41) | 0 (0) | 3 (50) | 3 (50) | 0 (0) | 0 (0) | 31 (37.3) |
| BF not given | 9 (14.8) | 0 (0) | 2 (33.3) | 1 (16.7) | 2 (50) | 2 (66.7) | 16 (19.3) |

DISCUSSION

Our study shows that 32 (59.2 %) deceased children had been given pre lacteal feeds in the form

of honey , Ghutti, cow's milk out of these 32 deceased children almost 50 % expired during the neonatal period. The association between pre lacteal feed and mortality was found to be statistically

significant in our study. Karen M. Edmond also observed risk of neonatal mortality with increasing delay in initiation of breastfeeding from 1 hour to day 7. overall late initiation was associated with a 2.4-fold increase in mortality risk (2006)¹¹. A study again done by K.M Edmond shows that initiation of breastfeeding after day 1 and early prelacteal feeding were associated with a threefold increase in mortality risk in LBW infants (2008)¹² where as Srinivasan Vijayalakshmi (2014)¹³ also observed that Morbidity among children was associated with breastfeeding practices with exclusive breast-fed children suffered less in the study area ($p < 0.05$).

In our present study it was observed that 25.9 % infants had received colostrums while pre-lacteal feed was received by 59.3 % infants. The results of our study support the data of NFHS - 3 India¹⁴ that shows practice of discarding colostrums by both urban and rural mothers. The reasons for delay in starting of breast feeding were, in majority of the cases due to social custom of giving pre-lacteal feed by some elderly women. Late initiation of breast feeding & not giving Colostrum to the newborn and practice of pre-lacteal feeding is related to neonatal and infant mortality. Literacy status of mothers along with fewer adherences to rituals and less influence of elderly are usually responsible for giving colostrums during first 3days and discouraging pre-lacteal feeds.

Ankuse R M (2002)¹⁵ study done in Nigeria reported that large proportions of both medical and non medically trained health care workers stated that they routinely give pre-lacteal feeds however their reasons for doing so differed significantly ($p < 0.00001$). J. O Ogbe (2008)¹⁶ in his study done in Delta state of Nigeria reported that only 10 % mothers had exclusively breast fed their child.

A study in urban slum population of Chandigarh (2008)¹⁷ found that prevalence of pre-lacteal feed are prevalent in society especially in the slums. Improving breastfeeding practices during the first days of an infant's life could be achieved by improving knowledge and confidence of mothers through appropriate perinatal counseling and support. Ensuring that health facilities integrate these practices into routine ante-natal care and post-delivery management is critical Our study also reveals that prelacteal feeds still in practice and one of the major reason for morbidity and mortality of infants even after so much efforts..

CONCLUSION

In our present study it was observed that large number of newborns can be saved if prelacteal

feeding practices are stopped. More over we must initiate vigorous and effective training programmes for health care providers as well as ANC mothers last but not the least community participation is must.

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