

Research Article

Initiation of relactation: an Army Hospital based study of 381 cases

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ABSTRACT

Background: Exclusive breast feeding continues to deteriorate in our country thereby increasing these infants to devastating illnesses inherent to top feeding. Relactation is an effective intervention to promote breast feeding and can successfully be established in most mothers with motivation and support.

Methods: A prospective hospital based study was conducted over a three year period in mothers with their less than 6 month old infants, admitted for various illnesses associated with lactational failure. Relactation supported by skilled hospital staff was initiated in all infants, as and when their condition permitted. No lactagogues were used.

Results: There were 381 mother and 387 infants (4 mothers had twins & one had triplets). 239 (62.7%) were primipara, 272 (71.2%) had delivered in the hospital and 246 (64.6%) had given prelacteal feeds. Commonest cause of lactational failure was insignificant milk (53.1%). 88% of the infants were bottlefed and majority was on animal milk. Relactation was attempted in all cases and was successful in 327 (85.8%) but failed in 54 (14.2%) cases. Establishing of lactation ranged from 5 to 28 days. Incidence of failure increased with lactational gap & age of infant.

Conclusions: Relactation is possible in almost all women and is an effective intervention to promote exclusive breast feeding.

Keywords: Breast feeding, Relactation

INTRODUCTION

WHO has strongly recommends exclusive breast feeding for at least the first 4 months and if possible the first 6 months of an infant's life, yet we come across a large number of mothers who have stopped breastfeeding for trivial reasons thereby exposing their infants to increased risk of illnesses, malnutrition and death.¹ As exclusive breast feeding continues to deteriorate in our country with devastating consequences, aggressive efforts should be made to provide motivation and support to the mother at every contact for exclusively breast feeding.^{2,3} Relactation means restarting breast feeding after a period of cessation or significant decrease in breast feeding and can successfully be established in most mothers who have stopped breast feeding with motivation and support. This potentially lifesaving measure is an effective intervention to promote exclusive breast feeding.

The present study was undertaken to determine the factors associated with termination of exclusive breast feeding and demonstrate the effect of relactation intervention in such mothers with lactational failure.

METHODS

This was a prospective hospital based case series study over a three year period and included 381 mothers with their less than 6 month old infants admitted in the Pediatric ward for various illnesses and malnutrition associated with lactational failure. Mothers with systemic illnesses and babies with severe birth trauma or major congenital anomalies were excluded from the study. Mothers who had stopped suckling their infants at breast for at least 15 days prior to admission and had no milk secretion even on manual expression were defined as complete lactation failure. These infants were totally on top feeds. On admission, structured maternal interview

was conducted for demography, family information and basic reasons for introduction of supplementary feeds. Age of the infant, duration of lactational gap and type of feeds given were noted. Detailed examination of infants and mothers were done and infants were treated for their medical ailments.

Both parents were clearly explained the whole process and the outcome expected. Relactation supported by skilled hospital staff was initiated in all mothers when the condition of their infants permitted. Mother's breasts were examined and they were advised rest, hygiene and good diet. No lactagogues were used. Mothers were encouraged to reinitiate breast feeding by allowing suckling by the baby for 10 minutes on each breast every 2 hours followed by a top feed given by paladai or cup and spoon. All bottles were discarded. If the infant did not suck due to lack of milk, milk was poured on breast with a dropper while the infant suckled or an infant feeding tube was attached to breast with one end at nipple and other end in a cup of milk.^{4,5} This prevented frustration of the infant and the mother.

Initiation of relactation was said to occur when the infant started suckling at the breast spontaneously and milk could be expressed manually. Establishment of relactation was considered when at least two feeds were replaced by breast milk. Relactation was termed complete when no top feed was required and the infant was exclusively breastfed. It was termed partial, when top-feed requirement was reduced by more than half. If there was no milk secretion even after 2 weeks or if the mother was discharged earlier due to various reasons without establishing lactation and with no subsequent follow up as outpatient, it was then termed as failure. Mother and infant pairs were later managed on an Out Patient basis and followed up weekly or fortnightly to note weight gain of baby or any other problems. On each visit persistence of lactation was noted and mothers were given necessary counseling and psychological support by motivated and skilled staff.

RESULTS

There were 381 mother and 387 infants (4 mothers had twins & one had triplets). The mean age of the mothers were 23.5 ± 2.4 yrs. 239 (62.7%) were primipara, 247 (64.8%) belonged to rural areas and only 7% were working. 272 (71.4%) had delivered in the hospital of which 183 were with intervention. 246 (64.6%) mothers had given prelacteal feeds. Pearson's correlation coefficient between duration of exclusive breast feeding and various variables did not show any significant correlation with maternal education, age, parity type of family, antenatal care, place of delivery or occupation ($p > 0.05$). Various reasons for starting supplementary feeds and the method of feeding are given in Table 1. Commonest cause was insignificant milk (53.1%). Many mothers wanted to habituate the baby which would make

subsequent top feeding easier. 88% of the infants were bottle-fed and majority was on animal milk.

Table 1: Stated reasons for starting Top feed and type of feeds given.

Reasons (n-537) @	Number	%
Inadequate milk	285	53.1%
Breast discomfort/rejection	21	3.9%
Relative's advice	25	4.6%
Infants illness	71	13.2%
Maternal Illness	29	5.4%
Habituate	83	15.4%
Work	14	2.6%
Others#	9	1.6%
Type of feeds (n-387)		
Bottle	342	88.4%
Katori/spoon	37	9.5%
Palladai	8	2.1%
Type of milk (n-387)		
Formula	144	37.2%
Animal-undiluted	81	20.9%
Animal-diluted	162	41.9%

@ Two reasons were given by 166 mothers and single reason by 215 mothers; #Included baby not gaining weight, advice by the grandmother, milk of not good quality.

Table 2: Relationship of lactation gap with relactation achievement.

Lactation gap (days)	Total number of mothers	Relactation achieved in numbers	Percentage
7-14	160	152	95%
15-29	124	112	90.3%
30-59	59	43	72.9%
>60	38	20	52.6%
Total	381	327	85.8%

Age of the infants ranged from 2 weeks to more than 22 weeks. Their lactational gap ranged from 7 days to 3 months. Relactation was attempted in all cases. Time taken for initiation of lactation ranged from 3 days to 18 days and for establishing lactation it ranged from 5 to 28 days. Out of the 381 mothers relactation was successful in 327 (85.8%) but failed in 54 (14.2%) cases. 233 had complete relactation while 94 had partial relactation. Table 2 shows the incidence of failure increased with increasing lactational gap. Shorter the lactational gap better was the relactation result. Failure rate similarly increased with increasing age of the infant (Table 3). Relactation attempt was successful in 189 (95.5%) cases, with more mothers achieving complete relactation in babies less than two months old, while it was only successful in 51 (64.5%) mothers with babies more than four months old. Moreover, within the relactation group, there was a proportionate decrease in the number of mothers achieving complete relactation as compared to partial relactation with increasing infant's age. Infants on

bottle feeding took longer time for initiation of relactation due to nipple confusion for infant and poor motivation in such mothers. The weight gain of all the infants on follow

up in both, complete as well as partial relactation was within their normal growth curves.

Table 3: Age group of infants and success rate of relactation.

Age of infant (mo)	Total no. of mothers	Partial relactation	Complete relactation	Total relactation		Failure of relactation	
		No.	No.	No.	%	No.	%
< 2	198	18	161	189	(95.5)	9	(4.5)
2 - 4	104	39	53	87	(83.6)	17	(16.4)
> 4	79	37	19	51	(64.5)	26	(35.4)
Total	381	94	233	327	(85.8)	54	(14.2)

DISCUSSION

Breast milk is the best food for babies and most mothers have this concept in their mind. However, even in our society where breast feeding is still a norm, a large proportion of mothers stop breast feeding and introduce supplementary feeding at an early age with devastating consequences.^{2,3} A study comparing mortality between exclusively breastfed and partially breastfed infants showed relative risk of death of 4.2 and which rose to 14.2 when compared with totally top fed infants. This risk of death further increased to 23.3 between exclusively breastfed and totally top fed infants when analysis was limited to the first 2 months of life.⁶ Hence every effort and encounter of the health worker with the mother and her infant should promote exclusive breast feeding.

A mother who has stopped breastfeeding her child, recently or in the past, can successfully re-establish breastfeeding and this potentially lifesaving measure is called relactation. It is an effective intervention to promote exclusive breast feeding and requires persistent and supportive care of the mother by the health staff. In our study relactation was successfully established in 327 (85.8%) mothers. Similar results have been reported by other studies with a smaller number of cases.^{7,8} In a study by Banapurmath, et al relactation was established in about one thousand mothers who had babies less than 6 weeks of age but had a short lactation gap due to which relactation was easier.⁹ This was also observed in our study with 95% relactation when lactation gap was less than 14 days and only 52.6% success when lactation gap was more than 60 days. This has also been reported by De, et al, who also achieved relactation even in surrogate mothers.⁸ Similar results were reported in one of the largest retrospective series by Auerbach and Avery, who reported successful relactation in 240 women for their adopted infants, 83 of whom had never been pregnant and 55 of whom had been pregnant earlier but never breastfed.^{10,11} In a significant study by Alves et al relactation was possible in more than 27% of sick infants who were hospitalized due to diseases associated with

complete lactation failure thereby significantly preventing hospital induced malnutrition.¹²

In our study there was no correlation between maternal education, age, parity, maternal nutrition or sex of the child with early supplementary feeding, which was similar with other studies.^{8,9} Various studies though have reported correlation of duration of exclusive breast feeding with parity, type of delivery, use of prelacteal feeds, breast condition, family structure and previous maternal history of breast feeding.^{5,12} The commonest reason for stopping breast milk was 'not enough milk' as perceived by 53.1% mothers which was similar to other studies.³⁻⁵ Condition of the mother's breasts; for example inverted nipples or fissures, breast infection were important factor in 12% of mothers in Seema et al's study, but was seen in about 4% mothers in our study.¹³ Majority of these mothers were using bottle for feeding and very few maintained proper hygiene. Only 7% of these mothers asked for medical help. These observations further highlight the importance of efforts to educate mothers, especially in the first few weeks of postpartum which are the critical time for establishing and sustaining exclusive breast feeding.

Marieskind commented that there are two basic requirements for relactation: firstly a strong desire by the mother to feed her infant and secondly repeated stimulation of the nipple by suckling.¹⁴ A mother is unlikely to relactate unless she is well motivated. Hence the key to relactation is to bring back the confidence of the mother so as to make her believe that she can successfully breast feed. An anxious and doubtful mother can inhibit her let down reflex. Lack of confidence is aggravated by absence of family support and even by medical personnel, probably due to lack of their knowledge and time. Hence counselling should include education of grandmothers and husbands to reduce negative reinforcements even after discharge. Though with adequate motivation and especially when lactational gap is less, most mothers can be managed in the outpatient. However, in some cases hospitalization is preferred so as to provide support, rest and treatment to

mother and also to provide constant encouragement by skilled health staff. Moreover the mother is in the company of other women who have recently established relactation.⁹ Relactation process is relatively easy in infants who are willing to suckle the first time they are put to breast. However Seema, et al reported that 74% babies with lactational failure refused to suckle initially during relactation, mostly because of difficulty in attaching to breast and needed help from skilled health worker.¹³ In general older infants are less willing to take to breast, especially if they have become used to feeding from bottles while younger infants are more willing and have more chances of successful relactation.¹⁰ Similar result was seen in our study with relactation being successful in 189 (95.4%) mothers with babies less than two months old, 87 (83.6%) mothers with babies between 2-4 months while it was only successful in 51 (64.5%) mothers with babies more than four months old. This was also possible because as the infant approached around five to six months the motivation for the breastfeeding decreased as he could be initiated to weaning foods. Moreover at the same time oxytocin-prolactin reflex mechanism in the mother also becomes weak. Lactogogues were not used in our study since their use is not recommended as a routine in absence of sufficiently established trials; moreover they cause side effects to mothers.¹⁵ Seema et al also concluded that with adequate support lactogogues should not be used.¹³ Most importantly health workers and mothers may become dependent on them and believe that it is not possible to lactate without using a drug thereby paying less attention to breastfeeding counseling and support for the mother. A small controlled study in the use of domperidone on mothers with preterm infants having insufficient milk showed increased milk quantity in two-third mothers, but the sample size was too small for routine recommendation.¹⁶

CONCLUSION

In conclusion, we believe that relactation is practically possible in almost all women with adequate motivation and support and is an important tool in promoting breast feeding. Hence every opportunity should be used to promote and re-establish breast feeding in any situation. But if the need for relactation arises frequently, it indicates that routine breastfeeding support needs to be strengthened. Prevention is important as relactation needs intense and persistent management and might rarely be necessary if mothers continue to receive good support and motivation from health services and community for breast feeding from the beginning of their antenatal care and through the first few crucial postpartum weeks.

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