



Lactation Problems in Post Natal Period: A Hospital Based Study

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Abstract

Introduction: Breast milk is the best gift of the mother to the baby. It is recommended that all new born babies should be exclusively breast fed for the first six months of life and breast milk should be continued at least upto two years of life. However due to multiple reasons, lactation problems are not uncommon in our mothers during the post natal period. This study was undertaken to find out various reasons of lactation problems.

Objectives:

1. To find out lactation problems of during post natal period
2. To compare the various reasons of lactation problems among mothers of normal delivery and LSCS

Methodology: Mothers in the post natal period were consecutively recruited till sample size of 200 (100 normal deliveries and 100 LSCS) were reached, excluding multiple pregnancy in a Tertiary care center. The prepared questionnaire was used to assess the problems by a single investigator and the results were analysed using chi square test

Results: Maternal risk factors like diabetes mellitus and prior treatment for infertility and birth weight of the baby had significant association with lactation problems. Problems of nipples like cracked nipples, inverted nipples and breast engorgement significantly contributed to lactation problems. Most of the mothers were not educated on proper technique of breast feeding.

Conclusion: Examination of nipples should be done during antenatal period. Health education should be given to all pregnant mothers regarding successful breast feeding. BFHI should be reinforced.

Keywords: Post natal, Breast feeding, Nipples, Latching, Normal delivery, LSCS.

INTRODUCTION

Breast feeding is the best gift for the newborn baby by the mother. Breast milk is the birth right of every neonate. Early and exclusive breast feeding is recommended by World health

organization for the first six months of life and it should be continued for at least up to two years of life.¹Colostrum is the first breast milk produced and it is the perfect starter food for the baby. It provides all the essential nutrients for the baby for

the first few days after delivery. Subsequently the transition milk and the mature milk are secreted by the mother. Human milk meet all the nutritional and calorie requirement of the new born baby. Breast milk promotes sensory and cognitive development and protects against chronic diseases. It contributes to health and wellbeing of mothers. It is safe for environment with no additional cost². It is an essential component for survival of children³. This contributes to Millennium Development Goal for reducing infant mortality^{4,5}. In our country it is especially important for future reduction of diabetes mellitus and malignancy⁶. As per NFHS data-3, only 25% of newborns were put to breast feeding within one hour and only 40% new borns were exclusively breast fed for the first six months⁷

Many factors interfere with successful breast feeding. Inverted nipples can lead to sore nipples, breast engorgement and breast abscess. Any significant illness in the mother including psychological disturbances can interfere with adequate milk production and feeding. This problem is more in preterms and low birth weight babies. Congenital malformations like cleft lip and palate, ankyloglossia, congenital heart diseases, problems occurring soon after birth like birth asphyxia, neonatal sepsis, seizures, syndromic babies, etc. all contribute to inadequate breast feeding pattern. There is paucity of literature on lactation problems in our country. The present study was undertaken to understand the lactation problems in immediate post natal period.

Primary Objective

- To identify the lactation problems among post natal mothers
- Secondary objective
- To compare the rate of lactation problems among mothers delivered by vaginal route and LSCS.

MATERIALS AND METHODS

It was a descriptive study done in a tertiary care hospital, Trivandrum.

The Study period was Six months from January 2016 to July 2016 and all consecutive deliveries were included, till 100 normal deliveries and 100 LSCS deliveries were completed. Mothers with multiple pregnancies were excluded.

Convenient sampling was taken. The mothers were approached by a single female investigator (second author), and requested for participation for the study. Informed consent was taken. The questionnaire was developed after literature search and peer review. After pilot testing in twenty mothers, a single research assistant administered the question to all the mothers. The question was translated to local language and used based on mothers choice. Variables were Parity, age of mothers, maturity of the baby and weight of the new born baby etc: All the details needed were asked by interviewer and entered in a proforma. Descriptive statistics was used to depict socio demographic variables, clinical profile, and lactation problems of the study population. Association between feeding problems and variables were determined. Statistical analysis was done using Chi square test. The study was approved by Human ethical committee of Child development Centre, Trivandrum

RESULTS

There were 200 mothers who participated in the study. Among them 100 had vaginal delivery and 100 had LSCS. The mean (SD) age of the mothers was 25.18 years (3.77). Range:19-38 years. Majority of mothers (56.18%) had studied up to degree and 28.1% had post graduate degree. 42% were employed and non-working women were 58% . The monthly income ranged from Rs.20000 to Rs.200000. The mean (SD) birth weight was 2.98kg (0.51).Male female ratio was 96:104.

The mean (SD) maternal age was 25.18(3.71) years in case of normal delivery and 28.1(3.72) years in case of caesarian section. Primigravidae constituted 61.5%. in normal delivery and 79.8% in LSCS. Among the recruited mothers all of them received regular antenatal care in the same

hospital from first trimester onwards. However, most of them (89.3%) did not receive any advice on breast feeding practices.

Primigravidae 82 (83.67%) showed more lactation problems than others 16 (16.32%) and the association was statistically significant ($p < 0.05$). Initiation of breast feeding was started within one hour in 34% of normal babies while only 2% babies of LSCS were initiated breast feeds within one hour. 40% of normal and 74% of LSCS babies were given within the first 1-3 hours of birth. Statistical analysis showed that it was significant ($p = 0.001$). No breast milk was offered for 5% of babies of normal deliveries and 3% of LSCS babies.

Considering the position of feeding, sitting posture was assumed by 58% of mothers with normal delivery comparing with 39% of LSCS mothers. More problems were found in LSCS mothers and it was statistically significant (p value: 0.006). Women who received antenatal advice regarding techniques of breast feeding either from health care providers or family members had less lactation problems than women who did not receive any advice in the antenatal period. The differences were statistically significant ($p < 0.05$).

Considering maternal risk factors, the common issues faced by the antenatal women included hyperemesis, hypertension, anemia, gastritis, muscle pain, fever, upper respiratory infections, wheeze, and urinary tract infection. However they did not have any significant association with

lactation problems. 30% of mothers (10% of normal delivery and 20% of LSCS) had diabetes mellitus and they had lactation problems which was statistically significant ($p = 0.048$). Among the LSCS mothers 64% had some risk factor during antenatal period comparing with 50% of women with normal delivery and the difference was statistically significant ($p < 0.05$). 93% of LSCS babies and 92% of normally delivered babies were full-term and there was no statistical significance. The various neonatal risk factors seen were respiratory distress (30% in both groups), jaundice (11% in normal, 9% in LSCS), sepsis (2% in normal, 1% in LSCS), hypoglycemia (3% in normal, 4% in LSCS), MSAF (3% normal, 1% LSCS), conjunctivitis (1% of normal), natal tooth (1% in LSCS). The p value was more than 0.05 and there was no statistical significance.

90% of normal deliveries were AGA (2% SGA, 8% SGA), while 81% LSCS babies were AGA (8% LGA, 11% SGA). Analysis showed that birth weight had a role in lactation problem and it was statistically significant ($p = 0.035$).

Various post natal factors of lactation problems included feeding position, flat nipples, cracked nipples, sore nipples, inverted nipples, breast engorgement, and blood stained secretions. 69.4% of mothers with nipple problems had feeding problems comparing with 37.1% of mothers without any problems of nipples. There was a significant association between problems of nipples and lactation problems ($p < 0.001$).

Table 1 showing comparison of two groups

| | Factors | Normal | LSCS | Significance |
|-----------|-------------------------------|-------------|------------|--------------|
| Maternal | Maternal age | 25.18(3.71) | 28.1(3.72) | 0.9 |
| | Treated for infertility | 5 | 15 | 0.01* |
| | Gestational diabetes mellitus | 10 | 20 | 0.04* |
| Neonatal | Birth weight | 2.78(0.5) | 2.93(0.5) | 0.9 |
| | SGA | 2 | 11 | 0.03* |
| Postnatal | Initiation of BF < 1hr | 34 | 2 | |
| | Attachment problem | 10 | 25 | |
| | Latching problem | 10 | 25 | |
| | Incorrect posture | 42 | 61 | |
| | Pain for mother | 10 | 32 | |

*Comparing the antenatal factors in two groups, gestational diabetes and infertility treated were higher in LSCS group which was statistically significant. Birth weight of the baby was statistically significant.

Considering the neonatal factors, conditions like jaundice, sepsis, respiratory distress, delayed cry, low blood sugar levels, neonatal tooth, conjunctivitis etc. did not have any statistically significant relation to lactation problems.

Lactation problems

There were 98 mothers who had lactation problems

Table 2. showing relation of lactation problems with various variables.

| | Lactation problems(N=98) | No problems N=102 | P value |
|------------------------|--------------------------|-------------------|---------|
| Age <30 | 86 | 93 | 0.62 |
| >30 | 12 | 9 | |
| Primi | 81 | 89 | 0.36 |
| >1 | 17 | 13 | |
| Normal | 36 | 64 | 0.0002* |
| LSCS | 62 | 38 | |
| Antenatal problems YES | 95 | 99 | 0.96 |
| NO | 3 | 3 | |
| Lack of advice YES | 90 | 100 | 0.04* |
| NO | 8 | 2 | |
| Education-Degree | 88 | 93 | 0.73 |
| Post graduate | 10 | 9 | |
| Working mother-YES | 8 | 4 | 0.2 |
| NO | 90 | 98 | |

*Chi-square test was done

DISCUSSION

Post natal mothers will have a wide range of experiences following delivery till they reach a level of personal comfort. Most of them experience generalized myalgia⁷ in the immediate post partum. In addition to myalgia, they may experience abdominal pain with cesarean delivery or pain in the perineum with an episiotomy or an instrumental delivery. She can also experience breast pain owing to cracked nipples or engorgement as a result of improper latch.⁹ Most of the mothers complain of musculoskeletal pain with the upright position for long periods of time.^{7,8} All these problems may be caused or enhanced by the improper techniques of breast-feeding. There were studies done on maternal and neonatal positioning while feeding, on various holds of the baby by mother and some studies only on initiation of breast-feeding such as skin-to-skin contact (SSC)^{11,12}

This prospective study revealed that demographic characteristics such as age of the mother, parity status and level of education, revealed a significant impact on the lactation problems they encountered. In this study, mothers who were

aged below 30 yrs revealed higher lactation problems than other women who were above 30 years, especially with latching and post feed techniques. The results with latching in relation to age were similar to the results obtained from the studies done by Kronborg and Vaeth,¹³ Santo et al.,¹⁴ and Goyal et al.¹⁵

Mothers, because of their maternal instinct, will try to feed their babies compromising their comforts. Thus feeding in wrong postures can lead on to backache, neck pain, and shoulder pain but may not affect the neonate until the feeding is continued. Mothers delivered by cesarean preferred to feed their babies in lateral (side-lying) position. The knowledge of the mothers was very poor on the advantage on the laid-back breast-feeding where the mother's body, specifically, her head, neck, shoulders, and upper and lower back were relaxed and was associated with an immediate relief of nipple pain.¹⁶ significantly decreasing the problems associated with lactation. Most of the mothers did not have any idea of latching ,attachment and positioning of breast feeding. Antenatal examination did not include examination of nipples. Hence all health care

providers, doctors, staff nurse, hospital attendants etc. should be educated with the breast feeding pattern and positioning of breast feeding and examination of nipples should be made mandatory in antenatal examination. Post natal period is the most important period where lactation is established and any problem during that period can lead on to lactation failure, compromising the cognitive and physical growth of the baby. Information, education and communication regarding exclusive and successful breast feeding will play a major role to bring down the incidence of lactation problems among postnatal mothers

CONCLUSION

Successful lactation is determined by early initiation and maintenance of breast feeding. Proper and positioning, latching and attachment to breast are integral aspects of exclusive breast feeding. Examination of breast should be included as an integral part of antenatal examination. Antenatal advice has to be given to all the pregnant women which will significantly help in successful breast feeding. Maternal reassurance and emotional support plays a significant role in reducing the lactation problems. Strengthening of BFHI should be done to facilitate exclusive breast feeding for the first six months of life.

Contributors

PGHP: Did the literature search, wrote the draft and analysed

Sheen: Data collection

BG: supervised the study

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