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Modified Latch Score as a Determinant of Weight on Postnatal Day 7 Among Late-Preterm Neonates

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Abstract
WHO insisted upon exclusive breast feeding during first 6 months irrespective of the gestational age2. Breastfed babies steadily gain weight and attain normal development1. Modified Latch score is an assessment tool developed for assessing the adequacy of breast feeding in neonates1. A score of more than or equal to 8 , suggests a successful breast feeding in neonate. To determine the association of the modified latch score with the percentage difference of weight in the late preterm neonates. In this cross sectional study, 75 neonates with gestational age of 35 completed weeks-36 weeks+6/7 days were recruited for the study. Birth weight was recorded on day 1 on digital weighing scale. Then Latch score assessment and discharge weight recording were done on post natal day 7. Babies classified into groups based on latch score as-group 1(latch score 4-5) with very poor score, group 2 (latch score 6-7) with poor score, group 3 (latch score 8-9) with good latch score. Then the groups were compared with the percentage difference in weight of the neonate. Data was analysed using Kruskal Wallis test used for comparison and Descriptive statistics was used for analysis. Group 3 neonates (14.7%) with very poor latch score of 4-5 had a percentage weight difference with a median of-10.74 % and Group 2 neonates (42.7%) with a poor latch score of 6 to 7 had a percentage weight difference of-4.09% . But Group 1 neonates (42.7%) with good latch score of 8-9 had a percentage weight difference of only-0.43 %, which was statistically significant($p<0.001$). Modified Latch score is an essential tool for breast feeding assessment to identify inadequate breast feeding, a reliable indicator of inadequate weight gain.

INTRODUCTION

WHO insisted upon exclusive breast feeding during first 6 months irrespective of the gestational age[2]. Low birth weight babies usually gain more and achieve catch up growth. Breastfed babies steadily gain weight and attain normal development[1]. The current slogan is Breast milk for brain growth, body growth and emotional well-being[1]. Hence the adequacy of breast feeding should be ensured for promoting adequate weight gain in neonates. Modified Latch score is an assessment tool developed for assessing the adequacy of breast feeding in neonates[1]. A score of more than or equal-8, suggests a successful breast feeding in neonate. In this study, we would be eliciting the weight on postnatal day 7 among Late-preterm neonates using Modified Latch score as a determinant.

Aims and Objective: To determine the association of the modified latch score with the percentage difference of weight in the late preterm neonates.

MATERIALS AND METHODS

In this cross sectional study, 75 neonates with gestational age of 35 completed weeks-36 weeks+6/7 days were recruited for the study. Babies with congenital malformations and comorbidities were excluded. Informed consent from the mother and IEC approval were obtained. Birth weight was recorded on day 1 on digital weighing scale. Then latch score counselling was given to mother on day 1. Then Latch score assessment and discharge weight recording were done on post natal day 7. Percentage difference of the weight was calculated.

Score more than or equal to 8-good score
Babies classified into groups based on latch score as
group 1(latch score 4-5) with very poor score
group 2 (latch score 6-7) with poor score
group 3 (latch score 8-9) with good latch score.

Then the groups were compared with the percentage difference in weight of the neonate. Data was analysed using Microsoft excel SPSS version 20.0. Kruskal Wallis test used for comparison and Descriptive statistics was used for analysis

RESULTS AND DISCUSSIONS

A total of 75 late preterm babies, where 52% were males and 48% were females

Seventy-five neonates are included in the study. Among them, 52 percent are male neonates and 48 percent are female neonates.

The breast feeding difficulties are screened through the Latch score. The majority of the neonates had the scores 8-9 (42.7%) and 6-7 (42.7%) whereas 14.7% of neonates had the Latch score of 4-5.

The latch scores are compared between male and female neonates using Chi-square test. The majority of the male neonates had the score of 8-9 (46.2%) followed by 6-7 (35.9%) and 4-5 (17.9%) whereas the majority of the female neonates had the score of 6-7 (50.0%) followed by 8-9 (38.9%) and 4-5 (11.1%). However, these difference are not statistically significant (P>0.05).

This table presents Kruskal-wallis outcomes, which compares the percentage of weight loss at the time of discharge of neonates between different latch scores groups. The statistical significance value (P<0.01) clearly reveals that there is a significant change in the percentage of weight loss at the time of discharge of neonates among different latch scores groups. In addition, the median scores indicate that the neonates who had latch score of 4-5, had high percentage of weight loss (10.7%) compared to the neonates who had latch score of 8-9 (0.43%).

In this study with 75 late preterm neonates, Group 3 neonates (14.7%) with very poor latch score of 4-5 had a percentage weight difference with a median of -10.74 % and Group 2 neonates (42.7%) with a poor latch score of 6-7 had a percentage weight difference of-4.09%. But Group 1 neonates (42.7%) with good latch score of 8-9 had a percentage weight difference of only-0.43%. The correlation between modified latch score and percentage weight difference showed that, difference in percentage weight difference between the groups was statistically significant (p<0.001). As the score of modified Latch score improves to> or equal to 8, adequate breast feeding and weight gain increases. This imposes the importance of Modified Latch score and importance of the latch counselling and monitoring needed in the immediate neonatal period. In a study by Buranawongtrakoon *et al.,* latch scores more than 8 correlated with exclusive breast feeding at 6 weeks post partum[3]. Successful breast feeding is an important child rearing skill to be learnt and practised[1].

CONCLUSION

Modified Latch score is an essential tool for breast feeding assessment to identify inadequate breast feeding, a reliable indicator of inadequate weight gain.

REFERENCES

1. Elizabeth, K.E., 2022. Nutrition and child development, 6th edition. In: Breast feeding, BFHI, MBHI and MAA Programmes, Elizabeth, K.E., (Ed.)., Paras Medical Publisher, Hyderabad, India, ISBN-14: 978-8181915382, pp: 9-61.

2. WHO., 2018. Exclusive breast feeding for optimal growth, development and health of infants. WHO.,, https://www.who.int/elena/titles/exclusive_breastfeeding/en/.
3. Buranawongtrakoon, Supree and P. Puapornpong, 2016. Comparison of LATCH Scores at the Second Day Postpartum between Mothers with Cesarean Sections and Those with Normal Deliveries Comparison of LATCH Scores at the Second Day Postpartum between Mothers with Cesarean Sections and Those with Normal Deliveries. Thai J Obstet Gynecol. 24: 6-13.

Modified Latch score assessment

Item	0	1	2
L - Latch	too sleepy, no sustained latch or suck	Repeated attempts for latch or suck, hold nipple in mouth	Grasps breast, Tongue down, lips flanged, rhythmical sucking
A- audible swallowing/ Assessment of milk transfer	none	A few with stimulation/ Partial emptying of breast	Spontaneous and intermittent/ Emptying of breast
T- Type of nipple/ Tuned to areola feeding	Inverted/ no attempts	Flat/ Trying areola feeding	Everted (after stimulation)/ fully tuned to areola feeding
C- Comfort	Engorged cracked, bleeding, large blisters or bruises	Filling reddened, small blisters or bruises	Soft , Non- tender
H- Hold	Full assist (staff holds infant at breast)	Minimal assist (staff holds, then mother takes over)	No assist from staff. Mother able to position and hold infant

Table 1: Gender wise distribution of neonates

Gender	Percent (n=75)
Male	52.0
Female	48.0
Total	100.0

Table 2: **Descriptive statistics of latch score and birth and discharge weight of the neonates**

Variables	Min.	Max.	Mean
Modified Latch score	4	9	7.09±1.37
Birth weight	2.03	2.94	2.57±0.23
Discharge weight	1.880	3.060	2.50±0.26
% difference (Median (IQR))	-20.00	21.12	-2.95 (-5.09 – 0.21)

Table 3: **Latch score wise distribution of neonates**

Modified Latch score	Percent (n=75)
4-5	14.7
6-7	42.7
8-9	42.7
Total	100.0

Table 4: **Comparing the latch score among male and female neonates**

Gender	Latch Score			N=75	p-value
	4-5	6-7	8-9		
Male	17.9%	35.9%	46.2%	39 (100.0%)	0.427
Female	11.1%	50.0%	38.9%	36 (100.0%)	

Table 5: **Comparing the percentage of weight loss at the time of discharge among different latch score groups**

Variables	Modified Latch score	N	Median (IQR)	P-value
% difference	4-5	11	-10.74 (-17.86 – (-7.25))	<0.001
	6-7	32	-4.09 (-5.07-(-1.83))	
	8-9	32	-0.43 (-1.71 – 2.34)	