



## **Lactose Over Load: A Curdle in Breast feeding?**

**Berttle Priya.D<sup>1,\*</sup>, G. Muthamilselvi<sup>2</sup>**

<sup>1</sup>PhD Scholar & Assistant Professor, Vinayaka Mission's College of Nursing, Puducherry, Vinayaka Mission's Research Foundation (DU), Salem

<sup>2</sup>Research guide cum Principal, Vinayaka Mission's College of Nursing, Puducherry, Vinayaka Mission's Research Foundation (DU), Salem

Email: berttle.berty2030@gmail.com

### **ABSTRACT**

*This case study discusses about the Lactose overload and its management. Lactose overload is excessive amount of lactose present in the mother's milk. Though the identification of this condition in earlier period is rare, thus the initiation of treatment is delayed. This delayed management causes delayed weight gain, digestion problems & consistent cry among newborns. Appropriate treatment and counseling will reduce the maternal depression as well as promotes the wellbeing of newborns and infants. As per the recommendation of WHO, exclusive breast feeding has to be continued until 6 months. So treating the minor ailments & promoting breast feeding is an essential role of midwife.*

**Key words:** Lactose overload, breast feeding, Newborn

Received 13.02.2022

Revised 22.03.2022

Accepted 20.04.2022

### **INTRODUCTION**

Human milk has a complex component. It is an ideal diet for the newborns in their early stage of life at least for the first 6 months of age. Even after thousands of years of human revolution breast milk is the only choice of perfect nutrition for newborns and infants. It gives protection against various types of infection and reduce the incidence of asthma, atopy, diabetes, obesity and inflammatory bowel diseases. Breast milk is commonly divided into 2 types such as foremilk and hind milk. Hind milk contains higher fat ratio, vitamin A & E and higher calories than foremilk. Foremilk also has all the nutrients like hind milk but in lesser quantity and more water content in it. Human milk contains peptides, predicted milk protease and bioactive peptides which are more important for the growth of the newborn and infant. Practically we could not identify which time foremilk or hind milk secrete.

Presence of lactose in foremilk is more. When the baby consumes more amount of lactose which causes gassiness, fussiness, watery alkaline natured stool, diaper rashes and poor weight gain. This condition is known as foremilk and hind milk imbalance otherwise lactose overload. Though it is commonly present, it is automatically corrected by when the feeding pattern is well established. In some cases, it extends up to lactose overload and the child shows the signs and symptoms like lactose intolerance. Lactose overload is not addressed or communicated to the nursing mothers and they were unaware of it. This results in confusion about the suitability of her milk to the baby, get panic, at last results in frustration and end up in early cessation of breast feeding. Here there are 2 cases which was rectified very comfortably and in easy way.

### **MATERIAL AND METHODS**

**Research Approach:** Qualitative research approach was used in this study.

**Research method:** Case method.

The subjects were closely observed, interacted and given non- pharmacological intervention to promote breast feeding.

#### **Case 1:**

A 26-year-old postnatal mother appeared on 22<sup>nd</sup> postnatal day with the complaints of, baby is not sleeping adequately, constantly crying, passing gases and burps very frequently, demands feeding very often and urinates in every 20 – 30 minutes. On history collection mother revealed that she is G1P1L1, had uneventful gestational period. She delivered at term gestation through vaginally, birth weight is 2.8 kgs, APGAR is good, baby adopted to the extra uterine life well. This woman has adequate amount of

breast milk and uses breast pad to absorb the excessive secretion. Baby is sucking effectively and latching is good. On examination the 22 days old male baby is active, alert, respond to external stimuli. His weight is 2.5kgs. breast condition of mother is healthy, there is no breast and nipple abnormality.

**Case 2:**

A 30-year-old postnatal woman came for the follow up on day 27<sup>th</sup>. She complains of constant and irritable cry from the baby, always wants to attach with her for feeding. Baby has disturbed sleep pattern, voids urine frequently and passing greenish frothy watery stool. Baby has colic attaches too. Mother complains of baby is not gaining weight. On history collection, she is G3P1L1A2, no complaints during antenatal and postnatal period. Baby delivered at term by lower segmental cesareansection due to failure to progress labor. Baby's APGAR is good, weight is 3.0kgs. on examination mother has adequate milk secretion, no nipple injuries like cracked or sore nipple. Good latching and positioning of baby for breast feeding were assessed. Baby's sucking pattern also satisfactory. The weight of the baby is 2.6kgs.

Both the mothers were asked for the breast-feeding pattern, artificial feeding/ cow milk was given to the baby or intake of traditional herbs or any other over counter medications either to the child or mother. They were enquired about the initiation of breast feeding, interest in feeding the baby, bonding between the mother and baby were assessed. Clinical examination revealed that the baby lacking in weight gain, passing frothy stools and having bloating abdomen. Mother has the problem of excessive production of breast milk. On the basis of this clinical evaluation, the diagnosis of foremilk and hind milk imbalance was done.

**Lactose overload:**

Breast milk provides balanced nutrition and immunity. Composition and consistency of breast milk changes throughout the feeding. The foremilk which has low fat and calories, it can be compared to skim milk is the first milk. When the feeding progresses, it turns as thick and fatty rich hind milk. Fore milk fulfills the fluid requirement of the baby where as hind milk gives the satiety to the stomach, provides more peptides, protease and bioactive peptides and enhance the growth and development of the baby. If the baby receives more amount of foremilk and does not get the hind milk, it creates the state of foremilk and hind milk imbalance. In this state the baby gets more amount of lactose due to over supply of foremilk. Sometimes it is misinterpreted with lactose intolerance.

**Causes:**

1. Over supply: Fat deposits over the alveoli of the breast due to its density where as water collects in the ducts of alveoli. When the milk empties from ductules and lactiferous duct, the fat deposition moves from the walls of the alveoli by means of milk ejection reflex and strong sucking by the baby a little later. So initially the baby gets watery contented fore milk and later on thick fatty hind milk. If the mother has excessive production of breast milk, then the fat mobilization takes little longer, mean time the baby is getting only fore milk for their feed.
2. Poor latching and positioning of the baby to the breast.
3. Injured nipple due to improper positioning and latching (sore or cracked nipple)
4. Baby is very hungry and wants to drink very quickly.

**Symptoms:**

Consistent cry, Greenish frothy stools, Presence of blood in stool, Repetitive digestion problem, Infant fart frequently and burp more than usual, Delayed weight gain, Frequency of micturition is more, Presence of diaper rash&Colicky attaches/ stomach aches

**Management:**

- Try different nursing positions (cradle, football holding and side lying) to promote the flow of milk from every segment of breast.
- Stop switching the breast often till the breast gets empty. So that the baby gets adequate amount of breast milk from each breast.
- Compress the breast to encourage the baby to suck more.
- Express/ pump out minimum amount of foremilk.
- Give time, pace and patience while breast feeding.
- Provide a break during breast feeding cycle before switching to another breast.
- Side lying position for feeding promotes the steady milk flow due to gravity and helps the baby to take a nap between feeding and drink more.
- Extend the duration of feeding time.

## RESULTS

After practicing the non-pharmacological interventions both the mothers were able to breast feed the infants in a comfortable manner. The babies gained adequate weight and shows the progress in the head circumference, chest circumference and length in the growth chart.

## DISCUSSION

Breast milk is the prime source of nutrition to the infants. Imbalance between fore milk and hind milk is also known as “Lactose over load”. Lactose over load was diagnosed with the signs and symptoms and managed with comprehensive appropriate good breast-feeding practices. In small number of infants goes into the worst state of lactose over load where they need pharmacological symptomatic treatment. Breast feeding is a very complex process due to the involvement of physical, psychological, social and cultural factors.

Initially these mothers were reported to have insufficient milk production in the early parturient period and practiced nonpharmacological interventions such as breast massage, proper breast-feeding technique, enhance baby suckling and psychological support. The production of milk was promoted. Currently the mothers were reassured of the symptoms and taught for manual expression of fore milk in a hygienic manner and store it for top up feeds after the feeding is over. Mother practiced change of position during feeding to ensure the emptiness of the breast. Switching of breast from one another was delayed. The mother and baby combo were assessed for 3 more consecutive weeks. The babies weight gain was gradually increased and the mothers were satisfied with the growth and development of the baby. The weight gain is recorded in every week same day. The first infant 2.58 kgs, 2.70 kgs and 2.9kgs respectively on 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> week. The second infant gained 2.7kgs, 2.84 kgs and 2.99 kgs respectively. Their sleep pattern improved and cry also diminished.

If the baby is growing normally, the mother can be confident that her baby does not need to follow prescribed breast-feeding regimens. Mother should respond to her infant’s cue for the feeding pattern.

## CONCLUSION

Recent studies shows that breast feeding not only provides passive immunological protection but also it gives direct modulated immunological and personalized microbial factors. So, it is said to that each and every mother is capable of producing milk which is more perfect and suitable to her child. Unfortunately, sometimes lactose over load was misdiagnosed as lactose intolerance in severe cases or the mother feels that her milk is not suitable for her child and stop feeding the child. Early identification and rectification of the problem promotes the wellness of the infants. Breast feeding is a complex and personalized phenomena which can be successfully achieved by proper feeding position, latching, extended duration, following the baby cues and support from the family and health professionals.

## CONFLICT OF INTEREST

The authors declare that they have no conflict of interest.

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## CITATION OF THIS ARTICLE

Bertle Priya.D, G. Muthamilselvi. Lactose Over Load: A Curdle in Breast feeding?. *Bull. Env.Pharmacol. Life Sci., Spl Issue [1] 2022* : 1087-1089