

A Short Overview of Some Important Concerns Faced During Breastfeeding

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Abstract

Breastmilk is the best nutrition source for babies. Though it is a natural process, many situations bring up challenges especially during the initial stages of breastfeeding. In this short review, we aim to discuss some important considerations-preparing for high-risk babies with antenatal expressing, the difficult transition during the lactogenesis phase in some cases including assessing tongue tie, dealing with choking during breastfeeding (excess let down), and excess weight loss. This is a pragmatic approach and is not an exhaustive review of this topic.

Keywords: breastfeeding, breastmilk, milk let down, choking, tongue tie, excess weight loss.

Introduction

Breast milk is the perfect food for a newborn baby, and the WHO advocates exclusive breastfeeding from birth till 6 months, following which appropriate complementary feeds are introduced along with continuing breastfeeding till 2 years of age [1,2]. There are many articles discussing the wide range of benefits that breastfeeding brings, for both the mother and her baby (1, 2, 3, 4). Though it is a natural process, there are certain issues that might affect successful exclusive breastfeeding, and in this short review, we will discuss some of these important issues.

Exclusive breastfeeding:

This term refers to breastfeeding being the sole source of nutrition and hydration to the newborn infant (apart from vitamin drops or important medications). The main objective is to minimize exposure to infant formula feeding, as continued use of infant formula feed invariably leads to a reduction in breastmilk supply, and hence, more dependence on formula milk. The BFHI initiative is a great step towards supporting exclusive breastfeeding at hospital discharge, and all healthcare personnel dealing with pregnant mothers and newborn babies should be familiar with the steps of BFHI and support their hospital efforts to meet these objectives [2]. We request you refer to the widely available resources on this topic.

Supporting feeding in high-risk infants (infants with risk factors for hypoglycaemia):

We are well aware of the risk factors for neonatal hypoglycaemia, which include prematurity, low birth weight, maternal diabetes, large babies, and maternal medications like beta blockers. Most of these babies would need blood glucose monitoring in the immediate postnatal period to detect and treat hypoglycaemia early [3]. Since lactogenesis 2 takes some time, many of these babies end up on infant formula supplements (as a medical indication, to prevent or treat hypoglycaemia) [2,3]. In most situations, we can anticipate and identify this high-risk group during the antenatal period. We should then focus on improving maternal education on breastfeeding in the antenatal period. The most important concept in this group (where we have new evidence) is antenatal expressing.

Antenatal expressing of colostrum can be started in the high-risk mothers in the above category (after reviewing by the obstetrician to ensure no contraindications) at 36 weeks gestation, and the mothers can be shown to hand express 3-4 times a day for a few minutes, and store the expressed colostrum so this can be used if the baby needs top up feeds after birth for any reason-this also shortens the time taken to establish breastfeeds, so concerns like excess weight loss, jaundice, etc are minimized. This can be introduced to all pregnant mothers, not just the high-risk ones after more evidence is available hopefully shortly [2,5].

Difficulty in establishing lactation:

This is a very common concern, especially when the mother herself has risk factors, including primigravida, delivery by lower segment caesarean section (LSCS), maternal hypertension or pregnancy-induced hypertension, and others. One very important factor is making the mother as well as her family aware of the natural sequence of lactogenesis-they need to know these important facts [2,5]:

1. Breastmilk production takes 2-3 days in most mothers to reach a reasonable level (apart from the small amounts of colostrum produced initially).
2. It is very important to empty the breast at regular intervals to remove the factor inhibiting lactation (FIL) that is produced. If breastmilk is not emptied, the FIL will suppress further milk production.
3. Adequate milk transfer needs milk production, let down, appropriate latch, and adequate suck by the baby.
4. The mother is learning, and the baby is learning as well-so the above sequence may not happen as expected in all cases in the first few days it is important to show all mothers how to hand express (and if needed, using a breast pump) so the breast can be emptied regularly (to counter factor 2 above).
5. Though breastfeeding is expected to be an instinctive process, in the developed world and in affluent societies, new mothers need dedicated support to identify problems early and provide support to overcome these-this can be done simply without excessive medicalization, and without provoking maternal anxiety.
6. We should look for infant factors like prematurity, small for gestational age (SGA) babies having a weak suck, difficult latch due to mouth-nipple size disproportion, tongue tie, and other factors.
7. A lactation consultant review or a review by an experienced nurse who can support breastfeeding effectively would help ensure appropriate latch early on, so we can avoid problems related to delayed lactogenesis (from the failure of emptying) as well as the complications of an upset baby-sucking on the nipple, like a cracked nipple, breast engorgement, etc.

Tongue tie is a peculiar problem, as it is fairly frequent in certain populations, and if it is a lax tongue tie with reasonable tongue movement, it is unlikely to affect breastfeeding. Adequate assessment and support by a lactation consultant can help the mother overcome the difficult latch caused by the tongue tie. However, if the problem is significant and persistent, it is better to treat it early (in the first 2-3 days) rather than let the mother suffer and then correct it after she has actually learned to manage otherwise. Speech concerns should not be a factor in this early decision-making, as this could be assessed at a later stage in infancy (around 2-3 years of age). Referral to a pediatric surgeon can be considered where the tongue tie is considered to require treatment based on the above assessment [6].

Weight loss assessment and breastfeeding support:

It is an established fact that most newborn babies lose 8-10% of their birth weight over the first 3-5 days, and then gradually gain the weight back. This process is important for maturation of the body fluid regulation, renal maturation and also helps the establishment of hunger cues, responsive feeding, and satiety regulation. The gradual increase in milk output over the first few days allows the baby to produce more lactase enzyme in the small intestinal cells (which is low at birth and upregulated over the initial few days based on the milk output). This helps to reduce the symptoms related to colic and the physiologic lactose intolerance often seen in well babies who receive a rapid increment in feed volume [5,7].

It is important to review the weight loss, urine output, and other factors to guide the establishment of lactation. This enables adequate support to the mothers facing a difficult transition as above, and this would prevent excess weight loss and the related risk of hypernatremia or excessive jaundice which could both occur secondary to excess weight loss and dehydration. An early post-discharge clinic review is also important to ensure the transition to successful breastfeeding and provide timely support as needed [7].

Sore or cracked nipples:

A poor latch due to any of the above factors can lead to the mother getting sore or cracked nipples. It gets aggravated as the milk output doesn't increase due to inadequate emptying (again due to the poor latch, and poor milk transfer cycle). It is very important to prevent this by careful attention to the latch early on, and emptying the breast by hand expressing (or using a breast pump) where there is a difficult latch. If the cracked nipple does develop, a brief period of using a nipple shield during feeds, accompanied by expressing to empty the breasts and topping up the baby with the expressed milk (along with careful skincare) will improve the situation [8].

Choking during breastfeeding:

In some babies, choking during feeds might be a concern, with the baby struggling to feed. They may not complete the feed or they may cough and splutter during the feed. The baby may look away from the breast or the baby may push the breast with the hands (an aversion response due to fear of choking). If it persists, they may start refusing feeds as well. The mother is anxious and gets scared as well, so the establishment of lactation doesn't go as well as you would want it to [8,9].

Rarely, if the choking is significant, there may be a colour change (bluish) and most of the time, because the mother is awake while feeding, they can realize it and take the baby off the breast before anything serious happens. However, some babies may get a little bit of milk into the lungs despite their coughing and trying to clear the airway. This may result in a mild aspiration episode. Most of the time, a healthy baby can clear it on their own. If the baby improves over the next hour or so, the breathing is not too labored and the baby looks well, it is likely to settle down. However, some babies might need hospitalization to monitor till stable [9].

Risk factors for choking during feeds:

Prematurity is one of the important factors contributing to this, due to incoordinate suck and swallow-most of these babies will be in the neonatal unit while progressing with the suck feeding in a gradual way as per the baby's tolerance. If the baby is borderline premature this becomes more challenging because these babies are usually a good size and not kept in the hospital for more than the normal stay of one or two days [10]. During this maturation phase, the baby is progressively maturing so it's not an abrupt maturation and the coordination of the suck and swallow which is very important for appropriate swallowing is still developing in these babies. Some babies behave a little more immaturely than expected for their own maturity, especially if they had respiratory distress soon after birth (related to transient tachypnoea of newborn (TTN) or other reasons). This can happen in a term baby as well and so it may take a few more days for them to mature and during this phase, they may need closer support [9,10].

The other important reason for choking during feeds is a fast let-down reflex. Let-down happens when the maternal hormone, oxytocin is released in her brain and causes milk to eject from the breast. A fast let-down reflex means milk spurts from the breast when the baby is not ready to receive the milk and swallow-this may surprise them and they might choke.

An oversupply of milk as well may lead to milk spurting or the flow being too fast for the baby to cope. The discrepancy between the nipple size and the breast size compared to the baby's mouth may contribute as well [10,11].

Possible measures to handle choking during feeds:

- A. If the baby is premature, a gradual progression (with supervised practice) will help improve and most neonatal units will have their own system to support this. The lactation consultant as well as a speech therapist could help.
- B. We need to recognize and correct the problems with latching because when the nipple is taken into the mouth without much of the breast tissue, the baby is not able to regulate the flow. This happens because the ducts which store the milk are around the areola and the baby actually can't clamp on it to adjust the flow of milk.
- C. We should advise parents to avoid overfeeding in terms of both duration and frequency and try to feed the baby before the baby is too hungry.
- D. It is important to look at the hunger cues and start feeding before the baby is agitated because of hunger. If they do get agitated they get frantic, they may start sucking without coordination and are impatient.
- E. If the flow is not good as well, they get restless and if the flow is too fast they may choke-anticipating and feeding appropriately is important. It is important to train the inexperienced mother to get used to looking at the cues and try to understand what the baby is trying to say [12].

How to deal with fast let-down and oversupply:

The fast let-down does not always mean over supply, this may be related to the hormonal status of the mother as well. Encourage the mother to try to be as relaxed as possible and try to feed the baby at relatively shorter intervals before the breast is too full [2,13]. If the fast let down is a problem because the breast is too full, advise the mother to consider expressing a small volume before taking the baby to the breast. If the baby is agitated, we could actually start the feed using this small volume of expressed breast milk (EBM) with a cup or syringe to calm down the baby and then start the breastfeeding. This will help both factors, by reducing excessive or fast let down (by removing some breastmilk and slowing down the let-down) as well as calming the agitated baby [13].

The mother can recline more so that the baby is above the breast and the gravity will reduce the flow. There is a brief period after the milk starts coming well (by day 3-5) when the baby still hasn't learned to feed very well. So, there is a relative oversupply-during this phase, she may need to express to soften the breast (due to the mild engorgement, due to a short lag between production and emptying)-the baby can then get a better grip as the breast will be softer after removing some milk by expressing. If it is a definite over-supply, the mother could try short feeds on both breasts [13,14]. This will avoid engorgement and also avoids emptying too much which may inhibit the milk supply and reduce production to reach a balance. Avoid excessive pumping when oversupply is a problem for the same reason. Good lactation support is essential till the feeding pattern is well established. Many of these babies tend to reflux as well, and the mother needs to be advised on this too.

Conclusion

The short and long-term benefits of breastfeeding are immense, to both the mother and her baby. It is very important that all paediatric and obstetric colleagues (both physicians, nurses, and midwives) are trained in managing all the issues discussed above that can impact successful breastfeeding.

Conflict of Interest

The authors declare no conflict of interest.

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