Everyone’s Fear: Lactation Failure

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GREETINGS FROM PUNE

KAKA HALWAI SWEETS
- Lactation is production of milk by the mammary glands which leads to breastfeeding.

- When mother is not able to provide enough milk for her baby, it's called lactation failure.

- It's a heartbreaking problem that involves emotional stress and possibly even depression, adding to the stress of having to care for a new baby.
Recommendations by WHO-UNICEF

- Initiation of breastfeeding within the first hour of life.
- Exclusive breast feeding until 6 months of age
- Introduce complimentary foods with continued breastfeeding
- Optimum to breastfeed for 2 years or longer
Coello-Novello
Child Psychiatrist
SURGEON GENERAL OF USA

“IT’S THE LUCKY BABY, I FEEL, WHO CONTINUES TO NURSE UNTIL HE’S TWO”
• Initiation of breastfeeding within 1 hour 23%.
• Exclusive breastfeeding up to 5 months of age-46%.
• Malnutrition-46% of under 3 year olds
U-5 child deaths (%) saved with preventive interventions

Breastfeeding is defined as exclusive breastfeeding for first 6 months and continued breastfeeding during 6-11 months

Developed by
Breastfeeding Promotion Network of India (BPNI)
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Source: Jones et al. LANCET 2003; 362:65-71
Breastfeeding is the physiologic norm for mammalian mothers and babies.
Major obstacles

- Societal and commercial pressure to stop breastfeeding, including aggressive marketing and promotion by formula producers. Media portrayal of bottle feeding as the norm.
- Inaccurate medical advice from health workers who lack proper skills and training in breastfeeding support.
- Working mothers
- Mothers feel they don’t have enough milk.
Obstacles to Breastfeeding
Initiation and Continuation

my baby was born premature so I couldn't nurse
my baby preferred the bottle
I didn't have enough milk to nurse
my breasts were much too small to nurse
my breasts were much too large to nurse
my baby refused to take the breast
I had to stop because I got breast fever

BREASTFEEDING FALSIES
- Insufficient milk supply is a major reason given by mothers for discontinuation of breastfeeding during first 6-8 weeks postpartum.
- Upto 80% women feel that their milk supply was inadequate at some stage during first 4 months.
- **True lactation failure is rare.**
What is enough milk.

- Initial weight loss upto 7-8%.
- Baby regains the birthweight by 10-14 days.
- There are two gold standards to know if the baby is getting enough breastmilk. If an exclusively breastfed baby is urinating at least 6-7 times in 24 hour period and gains at least 500 grams every month.
- Baby doubles her birth weight in about 5 months and triples in one year.
Physiologic basis for insufficient milk

- Milk production at 5 days is highly variable. (200-900mls per 24 hours)
- Following 3-5 weeks, milk output is progressively calibrated to the baby’s need, increasing in most cases.
- Interferences with calibration of the breasts during this time can cause breasts to calibrate at an inappropriate level.
Such Interferences include

- Supplemental feeds can cause breasts to make less milk or calibrate at an inappropriate level.
- Unrelieved engorgement.
- A mother of a preterm infant who does not express her milk to her peak yield, just to the transient limited needs of the small baby at the time.
- Scheduled feeding.
- Feedings that are not long enough.
- Pacifiers.
- Mother and baby separation.
What's up baby!
Wanna hop in the tub with me? Let's get freaky!
Has it been four hours yet?
• If breast milk production is to be sustained, milk must be consistently and effectively removed.

• Unremoved milk exerts an inhibitory effect on milk production, down regulating the amount produced through chemical (feedback inhibitor of lactation) and physical (pressure atrophy of milk secreting cells) means.
Reasons of low supply

- Pathophysiologica l lactation failure. (primary lactation failure)

- Inadequate sucking stimulus. (secondary lactation failure)
Perceived Insufficient Milk Supply

- Occurs in 50% of mothers and is a frequent cause of early discontinuation of breastfeeding
- This perception may be real to many mothers but often is not valid
- Mothers may think milk supply is inadequate because of soft breasts, breasts feeling less full, and cessation of leakage.
- Normal physiology is for breast milk to increase over first several days, usually accompanied by breast fullness
- Breast fullness then lessens after the 2nd week but does not indicate decrease in milk supply
Causes of lactation failure:

Maternal factors
- Delayed Lactogenesis 2:
  - Maternal nipple anomalies:
  - Painful conditions of the breast
  - Maternal medication:
- Maternal illness:
- Maternal breast anatomy:
- Psychosocial factors:
  - Maternal nutrition:
• **Delayed Lactogenesis 2:** If full milk production is delayed for more than 72 hours after delivery, it may contribute to early supplementation, and subsequently to a reduction in ultimate milk supply.

• Long duration of labour, emergency cesarean section, primiparity, polycystic ovarian disease, stress during labour, intravenous fluids and pitocin drip during labour, instrumental delivery, lack of initiation within one hour, type 1 diabetes, obesity, retained placental tissue and severe haemorrhage can cause delayed lactogenesis 2.
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- **Maternal medications:**
  - Oestrogen containing oral contraceptive pills,
  - Bromocryptine
  - Diuretics
  - Antihistaminics and nasal decongestants, especially those contain pseudoephedrine.
  - Smoking and alcohol
Maternal illness

- Thyroid disorder
- Diabetes
- Hypertension
- hypo-pituitarism,
- Infection
- Anaemia
- autoimmune disease
- connective tissue disease
- renal failure
Maternal breast anatomy

- Insufficient glandular tissue.
- Cosmetic breast surgery
Psychosocial factors: Both mother and family need to get psychologically geared up for breastfeeding. All family members should provide encouragement, adequate time and supportive environment for breastfeeding. It is important that mother and her family should be informed and prepared for breastfeeding during the antenatal period. Once the family is convinced of importance of breastfeeding, they will support the mother for the same.
Lack of Confidence in Breastfeeding

- This is the cause of most early discontinuations*
- Earlier postpartum follow-up visits, at 3-5 days and at 7-14 days, can provide an opportunity for the physician to intervene, help with any issues and reinforce the importance of continued breastfeeding**

*Ertem et al, 2001; **Guise et al, 2003
Causes of lactation failure:

Infant factors
Oral motor dysfunction:
Congenital malformations:
Ankyloglossia:
Uncomfortable baby:
Down’s syndrome:
Premature infant
Are these grades really the best you could have accomplished, son?

From a non-breastfed son, missing the long-chain polyunsaturated fatty acids in breastmilk, so essential for intellectual and retinocortical development, I guess it is, dad.
Management:

• To recognise who is at risk, anticipating insufficient milk and preventing iatrogenic factors that reduce the milk supply.

• Therapeutic interventions depend on the cause of the problem.

Milk production is a demand and supply process. To increase the production, the key is to remove more milk frequently from the breast, so that less milk accumulates in the breast between the feedings. Also one must make sure that the baby is positioned correctly at the breast and breastfeeding effectively.
Potential Indicators of those at risk for insufficient milk....

- Mothers who are less informed about breastfeeding.
- Intending to breastfeed for shorter time.
- Less confident.
- Being sensitive to lack of privacy.
- Less encouragement from family
- Poor health
- Fussy babies.
- Maternal labour medications, birth injuries.
- Primigravida
- Caeserian birth
Prenatal Breastfeeding Education

- A prenatal educational program is the most effective intervention to promote initiation of breastfeeding

- A systematic review and meta-analysis found that for every 3-5 women attending a program, one additional mother would initiate and continue breastfeeding for up to 3 months*.

*Guise et al, 2003
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Therapeutic interventions....

- Mother should be taught how to position the baby at the breast.
- Nipple pain.
- Feeding cues.
- Frequency-8-12 times in 24 hours.
- Cluster feedings.
- Diaper counts and weight gain.
- Initial wt loss
Increasing milk production

- Compressions.
- Avoiding pacifiers and bottles.
- Avoid supplementary feeding like formula, cow’s milk or water.
- Consider expressing the milk.
- Support the mother.
- Supplemental nursing systems
- Galactogogues.
Supplemental nursing systems
Galactogogues

Galactogogues is a material or action that stimulates milk production.

- **The action of pumping is the best galactogogue.**

Pharmacologic galactogogues-

- **TRH, GH**
- **Tranquilizers-chlorpromazine, haloperidal, sulpiride**
- **Domperidone** significantly less side effects. It increases the prolactin levels. The dose used is 20 mg 3 times a day to start with and can be used up to 40 mg 4 times a day. Many mothers take it for 3-8 weeks, but sometimes it is needed to take longer than that.
- **Metoclopramide** most commonly known and used
  - it does often have side effects, such as depression.
Herbal galactogogues:

- Shatavari
- Fenugreek
- Garlic
- Blessed thistle
- Milk thistle
- Alfalfa
- red clover
- marshmallow roots
- Rasberry leaf
- Goat’s rue
Successes of BFHI

- In Cuba, 49 of the country's 56 hospitals and maternity facilities are Baby-Friendly, and rates of exclusive breastfeeding at 4 months tripled in 6 years - from 25% in 1990 to 72% in 1996.

- In the first 2 years of BFHI implementation at Central Hospital in Gabon, cases of neonatal diarrhea fell by 15%, diarrheal dehydration declined by 14% and infant mortality fell by 8%.
Breastfeeding support in outpatient clinics

- Discourage supplying free formula and display educational material in waiting and examination areas.
- Provide pregnant women with educational material. Also recommend that the expectant mother and her family participate in a breastfeeding class before delivery.
- Have a telephone triage system in the office to address breastfeeding-related telephone calls.
- Involvement of a skilled lactation consultant.
- Designate a room within the office space for breastfeeding support, examination of the mother-baby diad.
- Provide breastfeeding mothers who plan to return to work with practical advice on how to continue breast milk feeding during separation from their infants.
Breastfeeding friendly zone
- Perceived or real low milk supply is a common concern of women and is a major cause to start supplementary feeding

- Early breastfeeding follow-up
- Proper positioning and latch-on...Examination of the diad together
- Training of the health professionals
- Support the mother
Newborn deserves the best Nutrition, Improved Survival, Optimum Development and healthy life

Breastfeeding Saves More Lives Than Any Other Preventive Intervention