

AN AYURVEDIC AND MODERN OVERVIEW OF IMPORTANCE OF BREASTFEEDING
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ABSTRACT

Ayurveda is a only science which is important for prevention of diseases and for healthy life. Breastfeeding is the “Golden Standard” for infant feeding. Breast milk is the ideal food for almost all infants in their early life of one year. Ayurveda gives more importance on nutrition at all stage of life, in order to preserve health of an individual. In ayurveda breastfeeding is described as a *samskara* of child which should be started with enchanting of Mantras. In *Sushruta Samhita* clearly indicated that Breastfeeding should be given upto teething start and then give solid foods at the age of six months.

According to modern sciences breast milk contains many antibodies that improve immunity in infants and protect them from various infections. Now whole world was hampered by Pandemic of COVID 19 so many questions raised about transmission of virus through breast milk but according to WHO, COVID-19-affected or suspected mothers should be informed about the importance to continue Breastfeeding to their infants and that this goal can be achieved by adopting appropriate hygiene and safety practices.

KEYWORDS: - Breastfeeding, Immunity, COVID 19,

INTRODUCTION

Breastfeeding is a source of healthy and proper nutrition in a newborn. Breast milk is ideal complete food for neonate. It is important for proper growth and development of baby. Breast milk is the best gift given by mother to baby hence Breastfeeding develops an emotional bond between newborn and mother. *Stanya* (human breast milk) is a complete source of Carbohydrates, Protein Vitamins, minerals, immunoglobulin's such as IgA(Secretory), IgM, IgG, water and other bioactive factors needed for new born. In *ayurveda Stanya* is said to be *upadhatu* of *Rasa dhatu*.^[1,2] Colostrums (first milk) is the rich source of essential nutrients so mother should give feeding to baby as soon as possible. According to *Acharya Harita* is *Guru*,^[3] as it contains Proteins and less amount of fat than mature milk. The ejection of *Stanya* (breast milk) is mainly due to sucking reflex of baby^[4] Today world is affected by **COVID-19 pandemic**, also known as the **coronavirus pandemic**, this ongoing pandemic is caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2).^[5]

According to the WHO, mothers with COVID-19 or suspected COVID-19 can breastfeed their babies as long

as they take appropriate precautions,^[6,7] so During this Pandemic of COVID 19 all mothers are advised to continue breastfeeding, while practicing good hygiene during feeding. As *Acharya Charaka* described *Stanya* has *Jivanam* (beneficial for life), *Bruhanam* (nourishes), *Satmya* (favourable) and *Snehana* (oleating) properties.^[8] also exclusive breastfeeding for six month has important to reduce the newborn and child mortality rate.

MATERIAL AND METHODS

The information is collected from various *Ayurvedic Samhitas*, *Ayurvedic* text's, different textbooks of Paediatrics, articles and published research papers, journals, medical websites etc.

Characteristics of Normal Human Breast milk

According to Acharya Charak:-^[9]

Breast milk is

1. normal in colour i.e. *varna*
2. normal smell i.e. *Gandha*
3. normal taste, i.e. *rasa*
4. touch i.e. *Sparsha*
5. Which dissolves easily and firmly with water breast milk having above characteristics provides proper nutrition, nourishment and helps in healthy growth and development of baby.

According to Acharya Sushrut :-^[10]

Normal breast milk is

1. *Sheeta*,
2. *Amalam* that is free from any type of impurities,
3. *Tanu* that is milk having thin consistency,
4. *Shankhabh* that is colour is like conch shell, having sweet taste
5. on mixing with water, it dissolves firmly evenly, which neither forms any type of froth nor sediment
6. It can't swim over water.

Stanya Nirmiti i.e Breast milk Formation

According to Acharya Charaka and Acharya Kashyapa after taking Ahara by pregnant lady then Ahara rasa which is formed, it get equally divided in three parts-
1st part is for nourishment of pregnant lady self
2nd part is for breast milk Preparation
3rd part is for development of fetus^[11]

According to Sushruta, Stanya is produced as a Prasadbhaga of Rasa Dhatu^[12] i.e. after digestion Ahara Rasa, is formed from well digested food & accumulated from all over the body, enters in breast. According to Acharya Kashyapa Stanya is produced from the Raktadhatu during gestational period.

Stanyapravartan i.e. ejection of Breast milk

According to Acharya Kashyapa, the love and affection of mother for her child is one of the causes responsible for ejection of Breast milk^[13] & According to Acharya Sushruta, the affection & touch of the baby causes ejection of breast milk.^[14]

According to modern science the Prolactin is a hormone secreted from the anterior Pituitary gland is necessary for milk secretion and it stimulates the production of milk from the alveolar epithelial cells. Then formed milk gets stored in the alveoli and lactiferous sinuses. After getting positive stimulus by the suckling of the baby or touch of the baby, Posterior Pituitary gland stimulates oxytocin Which is milk ejection hormone so milk ejection is a reflex phenomenon it is called as milk ejection reflex or milk let down reflex it is a neuroendocrine reflex so breast milk is production and secretion is a result of interaction of Anterior and Posterior Pituitary hormone and sucking reflexes of baby.^[15]

SEPERATION OF MOTHER FROM BABY MAY NOT PREVENT INFECTION

Stress factor in the pandemic of covid 19 plays an important role, because in this condition if mother is separated from baby may causes increase in the stress of mother so it causes negative effect on breastfeeding, explained nicely in Fig.1^[16]

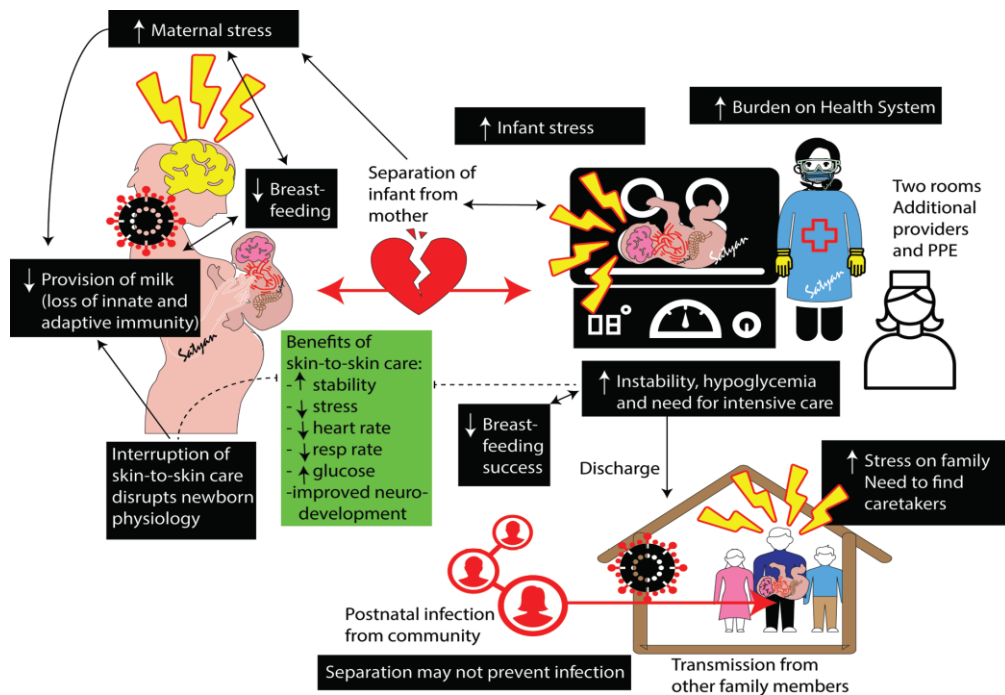


Fig 1 . Negative effects of separation of a mother who is confirmed or suspected with SARS-CoV-2 infection (Image copyright Satyan Lakshminrusimha). SARS-CoV-2, severe acute respiratory syndrome-coronavirus-2. Copyright © Satyan Lakshminrusimha. Readers are welcome to use this infographic as posters, slides, or brochures for patient, parent, and trainee education.

METHODS OF BREASTFEEDING

Acharya Charaka has advised *stanapan* (breastfeeding) from first day of life immediately after birth which is followed by modern science nowadays also, According to *Acharya Charaka*, mother should take a bath after that she should tie *Prajasthapan* drugs like *brahmi*, *aindri*, *satavari*, *amogha* etc on head and then start breast feeding, She should give first her *Daskshin stana* i.e. right breast to the child.^[17]

Acharya Sushruta described as after proper bathing of child and washing of breasts, then express out small quantity of milk with chanting the *mantra*, because breast full with milk after sucking of it by baby may causes *kasa* (coughing), *chardi* (vomiting) etc so after expressing some milk breast feeding should be started.^[18]

According to modern science, For breastfeeding mother and baby should be in a comfortable position and keep the baby's head slightly raised and then give alternate breast for each feed.

Proper breastfeeding position for Baby

1. Best position for baby is which support whole body of the baby.
2. Mother should ensure that baby's head, neck and back are in same plane.
3. Baby's abdomen should touches mother's abdomen. This gives warmth to baby.^[19]

Good attachment means infant's mouth is wide open and chin touches the breast, the mother should guide the nipple and areola into the baby's mouth for effective milk transfer. The milk transfer to the infant begins with good latch on and by peristaltic action from tip of tongue to the base.^[20]

Proper attachment of baby is important for the successful breast feeding and both the nipple and areola must be

completely grasped by the baby. If baby sucks only at the nipple, the milk is not ejected.^[21]

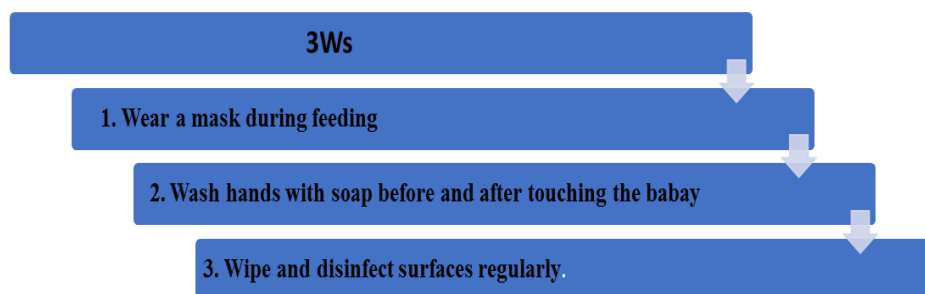
Breastfeeding during the COVID-19 Pandemic

According to the WHO, mothers with COVID-19 or suspected COVID-19 can breastfeed their babies by taking appropriate precautions. Breast milk contains various antimicrobial substances, anti-inflammatory components, and factors that promote the development of immune system and reduce the occurrence of respiratory tract infections.^[22]

The WHO advised that breast milk contains all the nutriment in appropriate proportions essential for the healthy growth of infants, who can benefit from breastfeeding also from mothers with COVID-19 infection confirmed or suspected.^[23]

Breastfeeding gives many health benefits for both the mother and infant and it is recognized as the ideal food for children in the first 6 months of life, Breast milk is perfectly adjusted to the infant's nutrition requirements and growth, because it contains all the nutrients an infant needs. It enhances the immature immune system of the infant and strengthens defense mechanisms against infectious and other agents throughout the breastfeeding period.^[24]

There is no evidence to date to suggest the novel corona virus can pass to infants through breast milk, because the virus was not found in breast milk. Breast milk samples collected at first lactation from mothers affected by COVID-19 during pregnancy were tested and proved negative for the presence of virus in a study performed in Wuhan, China, during the first 3 months of the local outbreak ^[25] so all mothers are advised to continue breastfeeding, while practicing good hygiene during feeding. These include the **3 Ws**:



Advised measures for breastfeeding mothers^[26]

- | |
|--|
| 1. Regularly practice respiratory hygiene including during feeding (covering mouth and nose with bent elbow or tissue when coughing or sneezing and promptly dispose of the used tissue) |
| 2. In case of respiratory symptoms (i.e., short breath): use a medical mask when near to breastfed infant. |
| 3. Wash hands thoroughly with soap or sanitizer for at least 20 seconds before and after touching the baby. |
| 4. Routinely clean and disinfect any surfaces have been touched. |
| 5. If severely ill with COVID-19, if COVID-19 is suspected, or in case of other complications that are an obstacle to continue a direct breastfeeding, express milk to safely provide breast milk to infants. |
| 6. If clinical conditions prevent to breastfeed or express breast milk, explore the possibility to practice relactation (restarting breastfeeding after a gap), or using donor human milk though certified donor milk banking. |

Approach for Human Milk Nutrition of Breastfeeding in Asymptomatic or Mildly Symptomatic Mothers with COVID-19 Able to Directly Breastfeed

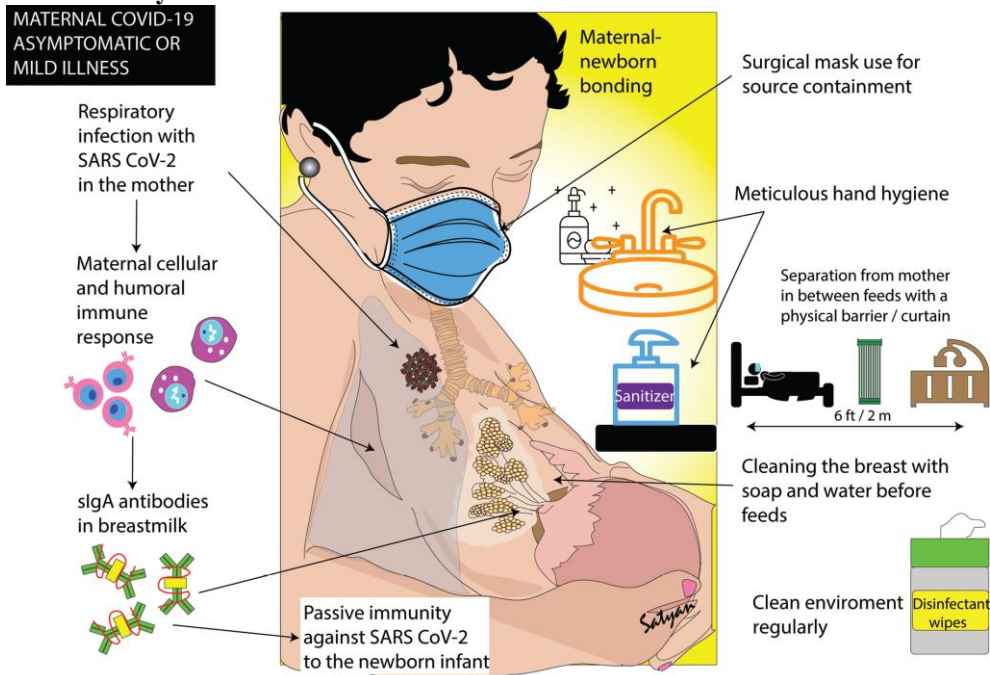


Fig. 2 Approach to human milk nutrition in asymptomatic or mildly symptomatic mothers with COVID-19 able to directly breastfeed. COVID-19, novel coronavirus disease 2019. Copyright © Satyan Lakshminrusimha. Readers are welcome to use this infographic as posters, slides, or brochures for patient, parent, and trainee education.

Approach to Human Milk Nutrition of Breastfeeding in Moderate to Severely Symptomatic Mothers with COVID-19 Unable to Directly Breastfeed^[27]

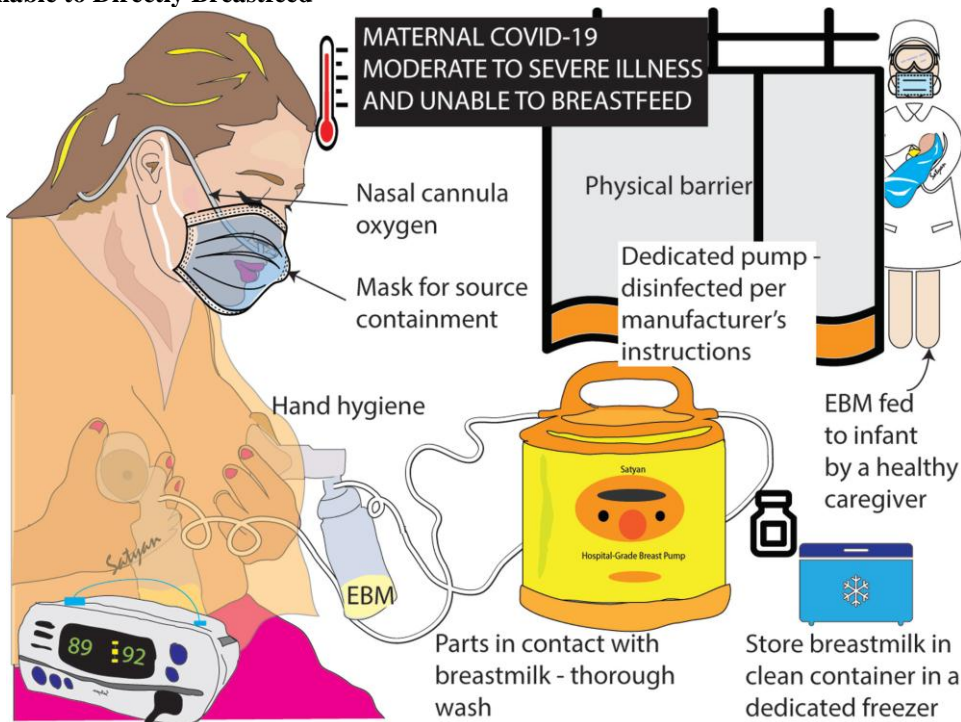


Fig. 3 Approach to human milk nutrition in moderate to severely symptomatic mothers with COVID-19 unable to directly breastfeed. COVID-19, novel coronavirus disease 2019 EBM, expressed breast milk. Copyright © Satyan Lakshminrusimha. Readers are welcome to use this infographic as posters, slides, or brochures for patient, parent, and trainee education.

Use of Concept Of *Dhatri* (wet Nurse) during Pandemic of COVID 19

Acharya Charaka, Sushruta, Vagbhata and Kashyapa all explained the concept of *Dhatri* i.e. wet nurse in detail. *Dhatri* (wet nurse) are advised in case of absence of the mother, or if the mother is unable to feed the baby. So during the pandemic of covid 19 the concept of *Dhatri* can be used. In *Samhitas* qualities of *Dhatri* were explained as- *Dhatri* should be

1. *Samanvarna* (same caste)
2. *Anatura* (free from any type of diseases),
3. *Avyanga* (having no any disability)
4. *Avyasani* (non-addicted)
5. *Vatsala* (loving and caring)
6. *Aroga* (Healthy) etc.^[28]

Benefits of Breastfeeding

Acharya Kashyapa called Breast milk as *Jeevanam* i.e. life Because *Stanya* (breast milk) provides all nutrition proper nourishment and strength which helps to increase *Ojas* in the baby which gives immunity. According to *Acharya Kashyapa* Proper growth, strength, longevity and good health of child depends upon breast feeding⁽²⁹⁾ while according to *Acharya Sushrut* breast milk is *Pathyakar, Jeevaniya, Bruhaniya* (anabolic), *Deepaniya* (digestive), *sthairyakar* (stabiliser), *rochana* (appetiser) and *Satmya* (favourable) for baby.^[30]

According to *Vagbhat, Stanya* is important for proper growth and development of baby.^[31]

In *Bhrihatrayi* and *Laghutrayi, Stanya* is said to be a complete food for all babies and *Stanya* is *Satmya* for all According to modern science, For Early formation of emotional bonding between the mother and the baby breastfeeding is important, also it provides warmth to baby by skin to skin contact and breast milk prevents neonatal hypoglycemia, also Breast milk contains immunoglobulins which provide immunity to baby against various infection.

1. Colostrum is thick milk that is clear and colorless or yellowish and high protein content, which is exactly what your baby needs in the first few days Colostrum contains antibodies called immunoglobulin such as IgA, IgG and IgM. Colostrum also contains carbohydrates, lipids, proteins, vitamin A etc. and sodium chloride, potassium, growth factors and antimicrobial factors. The antibodies in colostrum provide passive immunity to baby. these antibodies that protect baby from infections
2. Breast milk contains lactose (6-7gm/dl) this galactose is important for formation of galactocerebrosides, lactose helps in absorption of calcium and enhances the growth of lactobacilli, which is the good bacteria in the intestine.
3. Human milk contains amino acids like taurine and cysteine which are necessary for neurotransmission and neuromodulation.

4. Breast milk contains polyunsaturated fatty acids necessary for myelination of nervous system.
5. Breast milk contains number of growth factors, enzymes, and hormones for the proper growth of baby.
6. Exclusive breastfeeding for six month or more diminish the risk of recurrent respiratory tract infection^[32]
7. Exclusive breast-feeding for six months protects the infants from recurrent episodes of otitis media.
8. Breastfeeding reduced the risk of recurrent urinary tract infections in infant.^[33]
9. Breastfeeding reduces the risk of sudden infant death syndrome in Infant.^[34]
10. Breast feeding for six month delays the occurrence of atopic dermatitis, cow milk allergy, and wheezing in early childhood.^[35]
11. Breastfeeding is associated with a reduction in childhood obesity risk.^[36]
12. Breastfeeding also helpful in slight prevention of childhood acute leukemia or Lymphoma^[37]

CONCLUSION

Stanya (Breast milk) is called as *Jeevanam* i.e. life Because *Stanya* (breast milk) provides all nutrition proper nourishment and strength which helps to increase *Ojas* in the baby which gives immunity. Breast milk is perfectly adjusted to the infant's nutrition requirements and growth, because it contains all the nutrients an infant needs. It enhances the immature immune system of the infant and strengthens defense mechanisms against infectious and other agents throughout the breastfeeding period so Breastfeeding gives many health benefits for both the mother and infant and it is recognized as the ideal food for children in the first 6 months of life.

Now in pandemic of COVID 19, mothers with COVID-19 or suspected COVID-19 can breastfeed their babies by taking appropriate precautions, as there is no evidence to date to suggest the novel corona virus can pass to infants through breast milk, because the virus was not found in breast milk so mother should be encouraged for breastfeeding in pandemic of COVID 19 because breast milk contains various antimicrobial substances, anti-inflammatory components, and factors that promote the development of immune system and reduce the occurrence of respiratory tract infections.

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