

A CRITICAL REVIEW OF LACTATION INSUFFICIENCY WSR TO AYURVEDA

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ABSTRACT

Breast milk is exclusive and unique for both mother and child. It is most effective way to encourage baby's development in all kinds of natural and positive health methods. It is seen that lactational insufficiency is renewed in the mother due to anxiety, lack of motivation, support and also lack of knowledge about proper techniques of breast feeding. It leads to introduction of top feeding, ultimately resulting in partial and complete abandonment of lactogenesis. So, breastfeeding is a emotional, hormonal, physical and nutritional phenomenon affected by every component. So, a good

participation effort should be made to prevent it by motivation, nutritious diet, prenatal breastfeeding techniques education and use of herbal galactagogue. There are Ayurveda mentioned both internal balance and external control about management of lactation deficiency.

KEYWORDS: Breastfeeding, Stanyavardhak drugs, Galactagogue, Prolactin.

INTRODUCTION

Breastfeeding is one of the best effective way to ensure child health and survival. Breastmilk is composed of IgA, fat immunoglobulin, proteins, carbohydrates, minerals and antibodies. Exclusive breast milk is ideal form of nourishment in infants and neonates till 6 months. Adequate lactation is defined as secretion of 300 ml daily by 5th day and 480 ml by 10th day. If this amount are not achieved a baby of normal weight will not be adequately fed and such situation is termed as lactation deficiency.^[1] In Asian and tropical countries like India, prevalence of lactation deficiency may be 30-40%.^[2]

Breastfeeding provides protection against infection. It promotes close emotional and physical bonding between child and mother. It is always perfectly clean, fresh and right. Breastfed babies have lower risk of asthma, obesity, type 1 diabetes and sudden infant death syndrome (SIDS).^[3] Breastfeeding can reduce the mother's risk of ovarian and breast cancer, high blood pressure, type 2 diabetes and osteoporosis. During lactation period oxytocin is released which helps to contract uterus back to its pre-pregnancy size.

In India most of women are facing many problems due to modern lifestyle, in which stanyakshya is major a one. It is often associated with infrequent, irregular breastfeeding or incomplete withdrawal of milk residue. Other causes include inadequate quantity, and quality of nutrition, psychic trauma, insufficient sleep, over exhaustion and lack of fresh air. Since breastfeeding is hormonal, physical, emotional and dietary phenomenon bound to be effected by all these components. Care must be taken in all these aspects. In allopathy system of medicine, no specific and effective treatment is given, but in Ayurveda number of stanyavardhak drugs, aahar and bhava have been described by aacharyas. This article encapsulate the details of Ayurveda as well as modern perspective of breast milk and its inadequacy and management protocol.

AYURVEDIC REVIEW

1) Concept of stanya (breast milk) in Ayurveda

Ayurveda text has considered stanya (breast milk) as essence of life. It is the most nutritious and natural for baby's growth and development. Stanya is said to be derived from essence part of rasa. Charaksamhita^[4] describe the importance of breast feeding. Bhela^[5] has included milk amongst ten pranayatanas.

2) Formation of Breast milk

According to Sushrutacharya^[6] and Yogratnakakara^[7] Rasdhatu is formed after digestion of food. The essential part of its circulating all over body called is Stanya. It is also updhātu of rasa. Through Kashyapa^[8] and Vaghabhat^[9] accept the formation of stanya from rasa. While describing raktgulama or placenta formation they have mentioned that one part of rakt or the rakt left over after formation of placenta reaches breast, gets coloured by kapha and forms stanya. Acharya Harit^[10] also mentioned that food consumed by women when gets digested by agni in jathara reaches the channel's of breast and let out as stanya. Acharya Vaghabhat^[9] also mentioned that both Rajah and Stanya are essence of rasa.

3) Stanyappravartan (milk ejection)

As semen is ejaculated by thought, sight or touch of woman or coitus with her, similarly milk is also ejected by thought, sight or touch of the child and also with his physical touch of child i.e. sukling. For proper flow of milk uninterrupted affection for the child is mainly responsible.^[6]

4) Stanyapraman (amount of stanya)

Amount of milk is two Anjali.^[6]

5) Stanyanashhetu (causes of cessation of milk formation)

Anger, grief, absence of affection for child, fear, fasting, exercise, consumption of dry (free from oleaginous substances) edible and drink, emaciation, excessive use of purifying measures and re-pregnancy are the causes of cessation of milk.^[6]

6) Stanyakshaya Lakshana (clinical features of stanyakshaya or loss of milk)

Stanyakshaya lakshana's are.

1. Laxity of breast
2. Decrease in quantity or absence of milk secretion.^[6]

7) Samprapti (Pathogenesis)

In postpartum period, there is overall dhatukshayawastha due to labour pains as well as loss of blood and rakt.^[4] Labour leads to loss of mansa (muscle), bala (strength) and agni (digestive power).^[12] If at this stage puerperal woman consumes abnormal dietetics then vatpradhan tridosha prakop results which diminishes jatharagni. Due to which there is formation of morbid Rasadhatu. Stanya is upadhatu of Rasa. If any affliction occurs in rasa dhatu it ultimately affects on production of stanya which further results in stanyakshaya.

Chikitsa

Ayurveda treatment protocol points up on avoidance of nidanparivarjan (causative factors), shodhan (bio sanctification therapies) and shaman (palliative therapies).

a) Nidanparivarjan (Avoidance of causative agent).

Avoidance of anger, grief, fear, fasting, excessive exercise, consumption of dry edibles and drinks, emaciation, excessive use of purifying measures and re-pregnancy.^[8]

b) Shodhan(Bio sanctification therapy)

Acharya Vagbhata^[9] and Sushruta^[6] has explained that Vasti is the best treatment for vitiated vatadosha as well as illuminates jatharagni and provides strength. So Vasti is best treatment for stanyakshaya.

c) Shaman (Palliative therapy).

Ayurveda's main aim is to restore the balance of body. So main prominence in stanyakshaya should be on treatment of Rasakshaya, Vataprakop and Agnimandya through proper diet, life style and medicines. These are.

1) Aganideepan

For transformation of consumedahar to rasa, agni is essential key factor. In stanyakshaya primordial factor is agni. So, foremost step must be agnideepan.

2) Behavioral regimen

The major factor for stanyakshaya has been considered is Soumnasya (happiness).^[6] Kashyapa^[8] mentioned qualities of breast milk to educate the woman. It's importance has been quoted indicating towards encouragement and motivation of breastfeeding. Also their has been given importance on improving latch on with good physical contact, affection for child are also mentioned for continuous supply of milk.

3) Dietary (Lactogenic diet)

Considering the strength and digestive power of sutika, she should take easyto digest liquid diet like gruels (Yawagu) made up of chaval (Rice), yava (Barley), Daliya (crushed wheat), Mudgayusha(thick soup of Mung bean) with ghee/oil. Green leafy vegetables are tasty veggies to enjoy for natural lactation boost. Also their is cinnamon, ginger, garlic, cumin seeds, tilseeds, dilseeds, dals, dried fruits, nuts, oats, beets,brown rice, carrots help in increasing breast milk.

4. Hebal Galactagogue

a. Roots of Virana, Shali, Shastika, Ikshuvalika, Sadhya, Kush, Kash, Gunda, Itkata are ten stanyajanan drugs used in the form of decotion.^[4]

b. Milk treated with vajikarana drugs.^[8]

c. Milk treated with Marcia and pimpalimula.^[10]

d. Nadisaka cooked with jaggery and mixed with hingujatiphala.^[8]

- e. Drugs possessing apparent latex e.g. Dugdhika(EuphorbiaHirta).
- f. Powdered roots of Banakarpas and Ikshu mixed with Sauwira(Kanji).^[7]

MODERN REVIEW

1) Lactation failure

Lactation failure is defined as need to start top feeds for the baby within 3 month of delivery because of inadequate supply of breast milk supply.

2) Etiological factors

Factors which are responsible for lactation failure are divided into three.

a) Preglandular

b) Glandular

c) Post glandular

a) Preglandular-

- i. Retention of placental debris
- ii. Congenital prolactin deficiency
- iii. Sheehan's syndrome
- iv. Acute anaemia
- v. PCOS
- vi. Oral contraceptives
- vii. Medication e.g. Bromocriptine
- viii. Insulin dependent DM
- ix. Corticosteroid obesity

b) Glandular

- i. Primary hypoplasia (conginatal)
- ii. Secondary hypoplasia (Mamoplasty/
- iii. Radiotherapy

C) Postglandular-

- Improper lactation technique
- Separation of mother and child
- Ineffective emptying

3) Pathophysiology

Lactation is influenced by complex constitute of hormones (estrogen, progesterone, placental lactogen, oxytocin, prolactin) and metabolic hormones (Insulin, glucocorticoids, growth

hormone, thyroid). The reproductive hormones directly act on mammary gland, whereas the metabolic hormones act indirectly by changing endocrine response. But there are two main mechanisms occurring which are responsible for lactogenesis: oxytocin reflex and prolactin reflex.

1) Oxytocin reflex (milk ejection reflex)

From posterior pituitary oxytocin hormone is released which is responsible for contraction of lactiferous glands. When baby sucks nipple it gives stimulation of nerve ending in the nipple which produces oxytocin hormone, which depends upon thought, sight, sound of baby. Since this reflex depends upon mother's emotion, a relaxed, confident attitude which helps the milk ejection reflex. On the other hand, tension and lack of confidence hinder the milk flow.

2) Prolactin reflex (milk secretion reflex)

Prolactin produced by anterior pituitary gland is responsible for milk secretion by alveolar epithelial cells. When the baby sucks, the nerve ending in nipple carries message to anterior pituitary which in turn releases prolactin and that acts on alveolar gland in the breast to stimulate milk secretion. This cycle from stimulation to secretion is called as prolactin reflex or milk secretion reflex. The more baby sucks at the breast, the greater is the milk production.^[1]

Symptoms

Symptoms of lactation failure are.

- i. Infant is not satisfied after feed, cries a lot.
- ii. Takes very long feeds.
- iii. Wants to nurse frequently.
- iv. Infrequent bowel movement
- v. No improvement in weight gain.
- vi. Less need to change diaper.^[1]

Signs

Signs of lactation failure are.

- i. Not gaining birth weight up to two weeks of life.
- ii. Weight loss greater than 10% of birth weight.
- iii. No urinary output.
- iv. Clinical signs of dehydration.
- v. Absence of yellow stools in the first week.^[1]

Management

If milk production seems to be insufficient for the infant, due to low weight gain, in the absence of disease, the following measures are useful.

- i. Improve latch on, if necessary.
- ii. Offer both breasts in each breastfeeding.
- iii. Increase the frequency of feeding.
- iv. Allow the infant to empty the breast completely
- v. Avoid the use of bottles, nipple shield.
- vi. Eat a balanced diet.
- vii. Drink enough fluids.
- viii. Take a rest.^[1]

Incomplete lactation failure

- i. Nipple stimulation exercise by nipple stroking massaging the breast, rolling nipple between thumb and index finger.
- ii. Drop and drip method may be used.
- iii. Frequent sucking, at least 8-10 times a day for atleast 10 -15 min for each breast.^[14]

Galactagogues

Galactagogues are medications that help in initiating and maintaining adequate milk production. Eg.

- a. Metaclopramide
- b. Domperidone
- c. Thyrotropin releasing hormone (TRH)
- d. Sulpride
- e. GH
- f. Oxytocin

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