

Concept of Infant and Young Child Feeding Practices in Ayurveda

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Abstract – Infant and Young Child feeding (IYCF) practices emphasizes on exclusive breast feeding for first six months of life and introduction of solid food from six months onwards as complementary food along with breastfeeding up to two years of age. First two years are crucial period for an individual life as it is a period of rapid physical and mental growth and development. *Phalaprashan* and *Annaprashan* are unique concept mentioned in detail in *Ayurveda* texts. Both of these are celebrated as ceremony named as *Sanskar*. It is an introduction of fruit juices at an age of six months followed by semisolid food in a very small quantity and further offering food to the infant on demand in a quantity sufficient for proper growth and development; and according to *Agnibala* (digestive capacity) of the child. Similarly *Lehan* is mentioned with specific indication and contraindication. It is a multi-dimensional approach for over all physical, mental and social well being of child. Along with promotion of growth and development, it protects the child from being exposed to nutritional deficiency, complements breast feeding and functions as supplementary food. Practicing *Annaprashan*, *Phalaprashan* and *Lehan* along with guidelines mentioned under IYCF, the target goal of achieving best feeding practices for young and child can be achieved.

Keywords – IYCF, Complementary Feeding, *Phalaprashan*, *Annaprashan*, *Lehan*.

I. INTRODUCTION

Complete nutrition, proper care and education are basic right of each and every individual. Necessity and importance of food and nutrition starts right from conception; indirectly from mother and directly through milk feeding after birth. According to National food security act 2013, for children age group between six months to 6 years, an age appropriate meal should be provided free by local government bodies like *Anganwadi* to meet the food security of child. Different guidelines are laid to fulfill the desired nutritional requirement of Infant and young child. Optimal infant and young child feeding (IYCF) practices have been proved as effective interventions to improve child health. Despite all these, National family health survey-5 indicates that only 11% children up to age 2 years get complete nourishment. Sub-optimal breastfeeding [1], especially non-exclusive breastfeeding in the first 6 months of life, results in 1.4 million deaths and 10% of the disease burden in children younger than 5 years. Improper weaning and delayed introduction of complementary foods when a child has completed 6 months of age abate the infant's growth [2]. Various studies suggest early nutritional inadequacy can lead to long-term impairment in growth and development [3]. Micronutrient deficiency, also termed as hidden hunger leads to a cycle of poor health, poor educability, poor productivity and consequent economic losses. First two years of life is considered crucial as it's an opportunity for ensuring children's appropriate growth and development through optimal feeding [4]. Care of first 1000 days (conception to first two years of life) with appropriate nutrition ensures growth and development of a child to its full potential. Concept of Infant and young child feeding practices are given immense importance in *Ayurveda*. It is believed that *Ahara* (food) is

the utmost medicine. Breast milk is considered best for newborn [5]. In absence of mother's breast milk, there is description of *Dhatri* (wet nurse) or alternative nursing mother for breastfeeding. Animal milk like cow's or goat's milk enriched with other herbs is indicated for those who don't have access to breast milk of mother or wet nurse [6]. Among bovine category cows or goats milk is considered as they are congenial to the baby [7]. Cow has smaller body than buffalo and goat has got smaller body as compared to cow. So the quality and quantity of milk secreted are successively lighter. Milk of Goat is *Katu*, *Tikta* and *Laghu* in property, so it is easier in digestion and pacifies *doshas*. Also milk of goat is *Rasayan*, *Kshayaghna* and *Balavardhak*. None of the milk matches the health benefits of breast milk for the child. But enrichment of substitute milk is explained in *Ayurveda* like milk preparation with *Laghu Panchmool*, it is known to add immunogenic properties and folate content of milk and dilution of milk further decreases the solute load of milk. Addition of *Sita* (sugar) enhances its calorific values. As the *Agni* (digestive power) of infant is unstable and not established yet, frequent episodes of loose stool are observed commonly. Drug like *Kodrava* is indicated in case of diarrhea after introduction of animal milk. Breast milk provides all of the nutrients, vitamins and minerals an infant needs for growth for the first six months, and no other liquids or food are needed. However, from the age of six months, breast milk is no longer sufficient by itself; however it continues to be an important source of energy, high quality nutrients and anti infective factors beyond six months of age. After 6 months [8], the infant's need for energy and nutrients start to increase, the nutrients requirement of infant through complementary food are much higher in comparison to that fulfilled by an adult's diet. This is because infants consume small amount of food other than breast milk. Certain time bound rituals are explained, starting from birth onwards. *Kashyap* had given the term *Phalaprashan* for the introduction of fruit juices at 6 month of age and *Annaprashan* for solid food at an age of 10th month. As the milk is deficient in Iron and Vitamin C [9], concept of introduction of citrus fruits (*Phalaprashan*) is there to provide Vitamin C and facilitate iron absorption from other food. Repeated administration of a variety of nutrient-rich fruits and vegetables, both within and between meals help the infant to get accustomed to novel foods and experience a variety of flavor which promotes the willingness of an infant to eat varied foods later in life. After completion of one year [10], child is offered food from family pot depending upon his digestive capacity and interest. Concept of *Phalaprashan* is a special contribution of *Aacharya Kashyap*. It seems to be very logical as the fruit juices are liquid, sudden introduction of semisolid or solid food may cause intake inertness and also the palatability and acceptance of sweet, sour taste is more in infant. Also, the rooting reflex disappears by 4th to 6th month of age. Now the infant is ready for such type of food which doesn't require licking [11]. Sucking reflex disappears by the 12th month of age. Introduction of solid family pot food by the time will be appropriate for coordinated chewing, grinding and deglutition of food given to the child. If we look at the process of tooth eruption, by the time of sixth month dentition starts and at an age of one year incisors and 1st molars get erupted which is sufficient for mastication of solid food. Consistency and frequency of introductory food is explained, the food should be mashed properly prior introducing it to infant and given for three to five times. Energy dense, easily digested food like *Puran Shastishali* (rice), *Godhuma-yava* (wheat) mixed with oleaginous substances, mainly clarified butter and salt should be given according to *Prakriti* which must be congenial to the child. Clarified butter contains Docosa hexaenoic acid (DHA) along with fat-soluble vitamins [12], anti-oxidants, and conjugated linoleic acid (CLA), omega 3 acid which is responsible for health benefits in children. Maintenance of proper hygiene during cooking is assured by proper cleaning of grains [13], roasting is done without removing husk. Thus, food offered serves all

the purposes of nutrition along with breast milk of mother.

Various *Lehan dravya* (electuaries) are described for children to achieve standard and highest order of *Ayu* (longevity), *Bala* (immunity), *Smriti* (memory), *Medha* (intellect) etc. Specific *Lehan* are prescribed to be given according to age, for *Ksheerapa* (infantile period), *Ksheer annada* (1-2 years of age group) and *Annada* (age group from 2-16 years). One time licking of *Madhu* (Honey) and *Ghrita* (Clarified butter) is advised to the newborn just after birth before initiating routine breastfeeding [14]. Four different drug combinations along with *Svarna* (Gold) had been mentioned by *Acharya Sushruta* [15] [16].

1. *Svaran bhasma* (Gold ash) along with *Kustha* (*Saussurea lappa*), *Vacha* (*Acorus calamus*), *Madhu* (Honey) and *Ghrita* (Clarified butter).
2. *Svaran bhasma* along with *Kalka* (paste) of *Brahmi* (*Bacopa monnieri*), *Sankhpuspi* (*Convolvulus pluricaulis*), *Madhu* and *Ghrita*.
3. *Svaran bhasma*, *Arkpushpi/Payasya* (*Ipomoea paniculata*), *Vacha* (*Acorus calamus*), *Madhu* and *Ghrita*.
4. *Svaran bhasma*, *Kaidarya/Parvatanimba* (*Murraya koenigii*), *Shveta durva* (*Cynodon dactylon*), *Ghrita*.

Similar combinations are also mentioned in *Ashtang Sangraha* with little variation. Even season specific electuaries are mentioned to be given in different seasons [17], in different health conditions with different *Anupaana* (drug vehicles). Most of the electuaries mentioned above are combination of certain herbs administered with honey and clarified butter [18]. Along with high nutritional value *Ghrita* act as an excellent carrier and is used as vehicle to carry many herbs and spices with different medicinal properties for proper absorption and targeted transportation to cells and tissues. Honey is also an instant source of energy and has various medicinal properties. Apart from *Madhu*, *Ghrita* and Gold, various drugs mentioned in context of *Lehana* are *Rasayana* (rejuvenator). The *Rasayana* increase all the *Dhatus* at its best quality and maintain overall wellbeing of body.

When we look at the beneficiary group and indication of *Lehan*, it seems to be like filler of the lacunae occurring in routine nourishment due to many reasons. The indication of *lehan* includes baby of the mother with absence of lactation or insufficiency or vitiated breast milk, post natal complication or diseases related to mother, baby who cries even after feeding, sleepless, voracious appetite, defecating very less in amount or after every two-three days, lean and thin but disease free. The above mentioned indications by *Acharya Kashyap* suggests *lehan* as a means of nutrient supplementation employed in conditions where there would be chances of deficiency disorders [19].

II. CONCLUSION

Practice of food and nutrition in a traditional way according to cultural and environmental condition of one's society always had a scientific basis and seems logical if observed in depth. Guidelines of Infant and young child feeding, if practiced along with the principles of *Ayurveda* could be supportive and beneficial to fill the gap between poor nutrition and health. Acceptance, absorption and assimilation of nutrients would be better with the use of medicinal herbs. Also, the principle of feeding according to digestive capacity seems to be appropriate for better utilization of various nutrients consumed for good health.

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