



**STANAAPANAYANA (WEANING PRACTICES) IN AYURVEDA WSR TO
COMPLEMENTARY FEEDING**

¹*Dr. Vishwaradhya Hiremath and ²Dr. Netravati K Hiremath

¹Associate Professor, Dept. of Kaumarabhritya- Balaroga, SVM Ayurvedic Medical College, Ilkal, Bagalkot Dist. Karnataka, India.

²Medical Officer, PHC Shiruru, Yelaburga Taluk, Koppal Dist. Karnataka, India.

***Corresponding Author: Dr. Vishwaradhya Hiremath**

Associate Professor, Dept. of Kaumarabhritya- Balaroga, SVM Ayurvedic Medical College, Ilkal, Bagalkot Dist. Karnataka, India.

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ABSTRACT

Good nutrition is essential from birth for healthy growth and development in children. In early infancy up to 6 months of age breast milk alone is sufficient. There after concentrated energy dense complimentary foods are essential in order to maintain an adequate velocity of growth for an infant. More than 2.4 million child deaths occur in India each year and two thirds of these deaths are related to inappropriate infant feeding practices. The concept of word `weaning` has now changed to complementary feeding as breast feeding needs to continue in babies for a period of 2 years.^[1] In babies weaning time can be more dangerous. Since the babies accustomed to breast milk earlier, during the process of weaning there might be chances of non acceptance or difficult to accept the new type of food due to which they may face health ailments related to digestion and metabolism. They might also become malnourished and get infection, suffer from diarrheal disorders. Since from the ancient times the process of weaning and its proper knowledge has got more importance in infant and young child nutrition. In ancient Ayurveda, different *Acharya's* mentioned weaning procedure. In *Ashtanga Sangraha Acharya Vagbhata* mentioned weaning process as *Stanaapanayana*^[2] and weaning food recipes during the period.^[3] The father of ancient Ayurveda pediatrics *Acharya Kashyapa* also mentioned about *Phala prashana* (administration of fruit juice) followed by *Annaprashana Samskara* at 6 months of age and 10 months respectively.^[4] By considering all the above points an attempt is made to review and discuss the ancient and modern concepts of weaning process in Infant and children.

KEYWORDS: *Stanaapanayana*, Complementary feeding, weaning practices, *Annaprashana Samskara*.

INTRODUCTION

The period from birth to 2 years is the time for optimal growth and behavioural development. It is essential to ensure adequate nutrition in this critical time period. Yet the infant caring practices and resources vary tremendously by culture, in families and communities. Inappropriate infant feeding practices result in feeding difficulties and malnutrition ultimately leading to increased mortality and morbidity in children.^[1] The link between malnutrition and infant feeding has been well established. Recent scientific evidences reveal that the malnutrition has been responsible, directly or indirectly for 60% of all deaths among children under 5 years of age annually. Over 2/3rd of these deaths is often associated with inappropriate feeding practices and occurs during first year of life.^[5] Based on research studies, the problem of infant feeding still continuous in entire world. Ideally infant feeding compromises of exclusive breast feeding for 6 months followed by sequential addition of semisolid and solid foods to complement (not replace) breast milk till the child is gradually able to eat normal family food. The concept of

word `weaning` has now changed to `complementary feeding` for the simple reason that, with the introduction of other nutritious food, breastfeeding needs to continue in babies for a period of 2 years. As per UNICEF Weaning is defined as `the systematic process of introduction of suitable food at the right time in addition to mother's milk in order to provide needed nutrients to the baby.

In Ayurveda since from the ancient times, the process of infant feeding and young child nutrition has got more importance. In *Ashtanga Sangraha Uttara Sthana*, *Acharya Vagbhata* has mentioned about weaning as `Stanaapanayana`^[2] and food recipes for babies during that period. *Acharya Kashyap* father of Ayurveda paediatrics has described food as *Mahabheshaja* (a good medicine) and explain in detail about mother and child nutrition, importance of breast milk etc. *Acharya Sushruta* has classified the children based on type of food they consume, as *Ksheerapa* (exclusive breastfeeding stage) *Ksheerannad* (stage of breastfeeding complemented with other food items) and *Annad*

(children consuming only family food).^[6] Almost all the Ayurveda *Acharyas* in their classical texts also in Hindu *Purana's* mentioned the procedure of `Annaprashana` as one of *Samskara* (religious ceremony) that has to be done between 6 months to 8 months of age that is the procedure of initiation of complementary first family food to the baby, in addition to mother milk. Even in Ayurveda it is mentioned that breast feeding to be continued till 2 years.

AIM

To study and discuss the concept of weaning practice in comparison with *Stanaapanayana* (weaning) as explained in different classical texts of Ayurveda to meet the needs of effective infant and young child nutrition.

OBJECTIVES

- To review and discuss the concept of weaning according to Ayurveda and contemporary science.
- To review the types of weaning food recipes as explain in Ayurveda and contemporary science.
- To compare and discuss the advantages and effective applicability of both Ayurveda and modern methods of feeding practices.

Literary Review

As per Ayurveda, different classical texts and Hindu *Parampara* the procedure of weaning or complementary feeding is initiated with a ceremonial event called '*Annaprashana Samskara*', that is first time feeding with solid foods such as cereals to a child.

Time of initiation of weaning foods as per Ayurveda, the opinion of different *Aacharya's*, *Acharya Manu*, *Sushruta* and *Vagbhata* is same, that is *Anna prashana samskara* to a child is about 6 months of age.^[7] *Acharya Kashyapa* has shown minor difference regarding the type of food. He has described that the *Phala prashana* should be done, at the age of six months and *Annaprashana* (weaning of cereals) at the age between 8th and 10th month or when the teeth have got eruption. As per modern medical science, the concept of complementary feeding is at around 6 months of age as the baby becomes biologically fit and ready to accept complementary food.

Reasons for introduction of complementary feeding after 6 months of age are^[8]

- After 6 months of age, breast milk alone does not provide sufficient energy and nutrition; hence additional food is needed. The energy gap, that is, the difference between energy required and energy provided by breast milk, increases from about 200 kcal at 6-8 months to 800 kcal by 12-24 months.^[9]
- Develops head control and also has hand to mouth coordination.
- Intestinal amylase matures and gut becomes ready to accept cereals and pulses.
- Gums harden prior to tooth eruption and baby enjoys gumming semisolids.

- Tendency to push solids out of mouth decreases.
- Pancreatic amylase is not adequately secreted until an infant is 6 months - may lead to limitation of starch absorption.
- The presence of gag reflex interferes with early introduction of semisolids and solids. This sensitivity diminishes around 7 months of age facilitating feeding of solid foods.

Method of weaning as per Ayurveda

According to *Aacharya Kashyap* after the oblation in the *Yajan* the congenial weaning foods should be given in the quantity equal to thumb, before giving it should be mashed and make soft. About 3 to 5 times the different weaning foods should be touched to the infant's mouth later clean the mouth with water, there after recommended food should be given gradually day by day, by increasing the quantity as per the need of child.^[10]

Selection of right weaning food

Before selecting the weaning food to start with, consider the *Desha* (body/place) strength of *Agni* (digestive capacity) and *Kala* (time period) of the child. Any child, who is ingesting *Shad-Rasa* (6 tastes - sweet, sour, salt, pungent, bitter, astringent) balanced diet, should also follow '*Ashtavidha Visheshayatana*'. *Ashtavidha Visheshayatana* includes *Prakriti* (natural quality food), *Karana* (method of processing the food), *Samyoga* (combination of food substances), *Rashi* (quantity of food), *Desha* (where the food is grown /cultivated), *Kala*(time of intake of food), *Upyoga-Samstha* (rules of feeding) and *Upyokta* (person who consumes the food). Whenever child seems hungry the food according to the congeniality and compatibility should be given. The foods should be selected based on *Prakriti* (body nature) of the child. The child should not take '*Satmya-Viruddha*' *Ahara*(opposite food type). Out of 18 types of *Viruddha Ahara*, *Satmya-Viruddha* (opposite of compatibility) food should be avoided.^[11] If the child is suffering from any ailments, the food which is *pathya* (congenial) diet in that particular ailment should be given. Introduction of cereals is done between 6 months to 10 months of age, initiated and gradual reduction/avoidance from the breast after the complete eruption of teeth.

The diet and regimen are considered *Satmya* having opposite properties from the *Desha* (Body or area) and *Roga* (disease).

Satmya is of four types^[12]

- Ritu Satmya* (Beneficial/ compatible/ in accordance to season).
- Oka Satmya* (beneficial compatible/ due to prolonged use)
- Desha Satmya* (Beneficial/ compatible/ in specific area or body)
- Roga Satmya* (Beneficial/compatible/in disease)

Some examples of *Satmya* (congenial) diet for the child^[11]

1. Old *Shashtika Shali* (type of red rice), rice, mixed with *sneha dravya's* (oleaginous substances) and rock salt.
2. *Godhuma* (Wheat) and *yava* (barley) powder.
3. In Diarrheal State: Hot electuary cooked with *Vidanga* (Embelicaribes), rock salt and oleaginous substance mixed with *Kodrava* (*Paspalum scrobiculatum*).
4. In *Pitta Prakriti* Infants : *Mridvika* (dry large sized grapes) with honey and butter oil should always be given with diet.
5. In *Vata Prakriti* Infants: Diet with good quantity of *Matulunga* (citron fruit) juice and salt should be given.

In addition to breast milk cows Milk or goat's milk, boiled rice and other type of foods which are easily digestible and nourishing should be given.

Other Preparations for *Stanaapanayana Shishu*^[13]

- *Modaka* (Laddu- sweet balls) are prepared from the *Majja* of *Priyala* (Buchanania lanzan), *Madhuka* (Glycyrrhiza glabra), *Madhu*(honey), *Laja*(puffed rice) and *Sita*(sugar candy). These *Modaka* are given to the *Shishu* for satisfaction who have weaned from the breast.
- These *Modaka*(Laddu- sweet balls) may be prepared with unripe. *Bilva* (Aegle marmelos), *Ela* (cardamom), *Sharkara* (sugar candy) and *Lajasattu*(puffed rice powder) for the *Deepan* as appetizer.
- These *Modaka* may be prepared with *Dhataki*(woodfordia fruticosa) flower, *Sharkara* (sugar candy) and *Laja* (puffed rice) which causes *Tarpana* (hydrates) and is *Samgrahi* (Absorbant).

Concept of Complementary feeding according to Contemporary science

Complementary feeding is food other than breast milk. Complementary food may be specially prepared food or usual family food that is modified to make it easier to eat. For example, *ragi* is specially prepared for the child whereas roti soaked in dal is modified family food.

Good Complementary Foods^[14]

Food should be rich in energy, protein and micronutrients.

- It should be clean and safe.
- It should be easy for the child to eat (initially semisolid, pureed, later more coarse and textured).
- It should be easily available, affordable and preferably part of the family food.
- The taste should be appropriate.

Staple food is the main food eaten by the community; for example, *ragi*, rice, wheat, etc. Staple food is usually rich in carbohydrates and provides adequate energy but is not so rich in fats, proteins and micronutrients. Therefore to meet all nutrient requirements, staple food should be

combined with food rich in protein (pulses, meat, fish, egg), in fat (oil, ghee) and in micronutrients (fruits, vegetables). Breast milk forms the basic food and food that provide the required macro- and micronutrients should be given as complementary food.

Quantity & frequency of food^[15]

During the initial part of weaning, a small amount (1 to 2 tsp) of food is to be given 1-2 times a day at 6 months and then slowly increased to 2-3 times a day by 11 months. Feeding frequency is an important factor that affects a child's nutritional status. Given their small stomach sizes, young children need to be fed frequently to ensure adequate food intake. Complementary feeds may be given before, after or with breastfeeds as they don't influence 24 hours breast milk intake and total energy intake. The order in which these foods are introduced probably is not crucial, but only one new food should be introduced at a time, and additional new food should be spaced by at least 3-4 days to allow detection of any adverse reaction or acceptance.

Concept of Uni mix and Multi mix^[14]

Uni mix is a single cereal such as *ragi* or wheat whereas multi mix is a combination of more than one cereal or a cereal and a pulse.

For example, *khichdi* (rice + moong dal) is a multi mix.

The food items that can be introduced are:

6-7 months - *Ragi*, rice, wheat, banana powder, dalia (broken wheat)

7-8 months - *Khichdi*, *idli*, rice, dal, introduce pulses.

8-9 months- Fruits and vegetables*

9-10 months Egg

10-12 months Family food

*Can be introduced earlier also, AAP recommends introduction of egg after 1 year

DISCUSSION

Since from the ancient period Ayurveda *Acharya's* given importance to young child nutrition. To assess the growth and development to provide required care at each development stage right from birth, various *Samskara's* (Religious ceremony) were told. Each *Samskara* improves the quality of life. Among those *Anna prashana* and *Phala prashana Samskarare* related to young infant and child nutrition, that is the procedure of initiation of complementary feed in addition to mother's milk. Through this *Samskara* we can assess growth and development, maturity of the digestive system, period of dentition, proper dietic advice can get to know. Six months of age is the period of *Annaprashana samskara*, same as the age of initiation of complementary feeds as advised by contemporary science. That is. But *Acharya Kashyapa* opine differently, that is at the age of 6 months he advised *Phala prashana* and *Anna prashana* between 8 months to 10 months of age, that is at the time of dentition. Whereas other *Acharya's* opines 6 months of age is ideal to start complementary feeds. Regarding the dietic advise many recipes during the period of *Stanaapanyana* (weaning) were advised. Different types

of *modakas* (Nutricious laddu/ sweet balls) where told these *modakas* were prepared as per need and condition of the child and also proper advise for the use of congenial food based on body nature, place, time, health conditions, were considered. That is the concept of *Viruddha ahara* (opposite foods/ allergic foods), and proper advice to avoid those type of *virudha ahara*, proper methods to follow during the preparation of food recipes were advised. The concept of *Ashtavida visheshayatan*, the selection of food based on *prakriti* (Body nature) of the child is specially described in Ayurveda. whereas in contemporary science it is generalized to all types of children. The energy requirements and different food recipes based on caloric value and the quantity of micro and macro nutrients present in particular type of foods were considered. The recipes of both animal and plant origin were advised.

CONCLUSION

In present era the concept of weaning, that is complementary feeding should be started at the age of 6 months. There after along with proper weaning food to be selected based on body nature of the child. In addition to complementary food, breastfeeding to be continued till the age of 2 years. *Asatmya* foods (non congenial) should be avoided. The ideal complementary food should be homemade, indigenous, hygienic, fresh and calorie dense. Thus the weaning at proper time and with ideal complementary foods in addition to mother's milk to meet the extra nutritional requirements of a growing child is essential. It is also important that to incorporate traditional methods of complementary feeding with recent concepts of weaning in order to ensure the proper growth and development of a child.

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