

## Nutrition and Related Disorders in Childhood Age: An Ayurvedic Overview

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### Abstract

Childhood is the formative period which lays the foundation of adult life, so a healthy childhood is mandatory for expecting a healthy adulthood. Thus the wellbeing of these children, on the threshold of physical and mental maturity is vital for development of nation and this can be done by supplying the needful nutritional requirement of the childhood age. In fetal life, the baby receives nutrition through placenta of mother and after birth continues to receive all the nutrients from mother's breast milk which is the ideal and the most natural food for an infant. Classical texts of *Ayurveda*, advises the intake of *Stanya* from the day of birth continued until the age of two years. After 6 months of age introduction of fruit and fruit juices recommended as *phalaprashana samskara*. As children develop, they require the same foods as adults i.e. whole grains, a wide variety of fresh fruits and vegetables, calcium for growing bones, healthy proteins, healthy fats are needed to support the growing body of a child. In our Ayurveda texts nutritional disorders of childhood age are explained as named Karshya, Phakka Roga, Balshosha, Parigarbhika by different Acharyas.

### Keywords

*Stanya, Phalaprashana samskara, Karshya, Phakka Roga, Balshosha, Parigarbhika*



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## INTRODUCTION

Nutrition is a core pillar of human rights and threshold of physical and mental maturity is vital for development of nation and this can be done by supplying the needful nutritional requirement of the childhood age. In fetal life, the baby receives nutrition through placenta of mother and after birth continues to receive all the nutrients from mother's breast milk which is the ideal & the most natural food for an infant. The dramatic growth of infants during the first year of life imposes unique nutritional needs so, mother's breast milk is ideal for a newborn. *Acharya Kashyapa* has explained the features of pure breast milk as that with which the baby thrives well i.e. achieves sufficient growth & development and both the mother and baby remain disease free i.e. healthy and happy or comfortable<sup>1</sup>. The milk of a mother is best suited to serve the biological needs of her baby. If the mother does not have enough breast milk or if she is critically ill, it is better to employ a wet nurse (*Dhatri*) as no other milk can compete with human milk i.e. according to Ayurveda there is provision of *Dhatri* or wet nurse instead of other external milk in absence of mother's milk. *Acharya Charaka*<sup>2</sup>, *Vagbhata*<sup>3</sup> all have suggested to employ wet

nurse to feed the baby adequately.

## NUTRITION RELATED DISORDERS IN CHILDHOOD AGE

Health and disease in *Ayurveda* are discussed in terms of three *doshas* (*Vata*, *Pitta*, *Kapha*). Maintained equilibrium of all the three *doshas* indicates for good health while disturbance of equilibrium leads to a disease. In childhood age predominant *dosha* is *Kapha* and it can be said that *Kapha dosha* is associated with anabolic activity of the body. In other words childhood is age of growth and development of the body so, it can be said that maximum childhood diseases are related to *kapha dosha* disturbance. Hence, all such food stuffs has to be avoided from the diet of the child which vitiates *Kapha* & *Vata dosha* leading to diseases like *Balshosha*<sup>4</sup>, *Phakka Roga*<sup>5</sup>, *Karshya*<sup>6</sup> etc. i.e. diet which maintain the equilibrium of all the three *doshas* required for the health or, proper growth and development of the child. In our *Ayurveda* texts nutritional disorders of childhood age are explained as named *Karshya*<sup>6</sup>, *Phakka Roga*<sup>5</sup>, *Balshosha*<sup>4</sup> and *Parigarbhika*<sup>7</sup> by different *Acharyas*.

The diet has a major role in causation of such diseases. In all these diseases nutrition of the child is hampered at a level due to

some reasons i.e., it can be said that these diseases by their clinical features, signs & etiology similarize some degree of undernutrition and malnutrition.

### **Karshya**

*Sushruta* have clearly mentioned that vitiated *Vata dosha* leads to *Krishta*<sup>8</sup>. *Vata dosha* is responsible for the *Apachita sharira*<sup>9</sup> i.e., *Karshya* of the body. It may be said that a lean and thin looking person having no other complaint may be taken as *Karshya*. All etiological factors<sup>10</sup> explained by various classical texts cause *Vata Prakopa* which leads to *Dhatukshya* specially *Mamsa* and *Meda kshaya* and manifest the *Karshya roga*. From another point of view, etiologies of *Karshya* included dietic factors like *Ruksha Annapana*<sup>10</sup> can be included in undernutrition where food is qualitatively less and *Anashana*<sup>10</sup>, *Alpashana*<sup>10</sup> in undernutrition where food is quantitatively less.

### **Phakka Roga**

It is a disease of children mentioned only by *Acharya Kashyapa*<sup>5</sup>. It has been defined as inability of a child to walk even by the age of one year. One of the etiologies of *Phakka Roga* is *Kapha* vitiated breast milk<sup>[11]</sup> and second one is immediate

conception of lactating mother<sup>12</sup> i.e. early cessation of breast milk leading to emaciation of the breast fed child. It can be said that the root cause of the disease is nutritional deprivation – resulting from lack of knowledge of spacing between children.

### **Balshosha**

The word *Balashosha* is formed from two separate words i.e. *Bala* and *Shosha*. *Bala* means a child and *Shosha* is used for emaciation of body and its *dhatu*s. Thus *Balashosha* can be defined as a condition in which child is emaciated. *Acharya Vagbhatta* has mentioned three main causative factors for *Balshosha* viz. excessive sleep in day hours, excessive intake of cold water and excessive intake of *Kapha* vitiated breast milk<sup>13</sup>. All the causative factors cause vitiation of *Kapha dosha* as said by *Vagbhatta*. This vitiated *Kapha* leads to *Agnimandya* which further causes improper digestion of *ahara* i.e. synthesis of defective poor *ahara* rasa, called *Ama Rasa*. This *Ama Rasa* is responsible for obstruction of *rasavaha srotasa*. As it is well known fact that all the tissues of body are nourished by the *Prashasta Rasa* circulating in *Rasavaha srotasa*. Thus obstruction to *rasavaha srotasa*

and ill formation of *Rasa dhatu* leads to *anuloma Kshaya* of the subsequent *dhatu*s (tissues). The poor nutrition of tissues results in emaciation of the child leading to the *Balashosha*.

### ***Parigarbhika***

The breast milk of mother, who becomes pregnant in quick succession, highly lacks nutrient values besides quantitative reduction and then the baby who is exclusively dependent on such milk remains weak and progressively develops the manifestations of undernutrition followed by malnutrition. So it can be said that the baby feeding on a pregnant mother's milk will catch the disease *Parigarbhika*<sup>7</sup>.

### **DISCUSSION**

In present time, interpretation of all above explained diseases are meant for comparison with progressive under-nutrition followed by malnutrition ultimately leading to growth retardation and failure to thrive (FTT) of children e.g. in *Phakka* disease, as per symptoms it can be inferred that reason for delayed growth & development is somewhere either nutrition deprivation or diseases caused by nutrition deficiency. Deficiency of a single nutrient is an example of under nutrition and malnutrition, but

deficiency of a single nutrient usually is accompanied by a deficiency of several other nutrients<sup>4</sup> and in present era, nutritional deficiencies constitute a major public health problem in India & other countries of the world. To overcome these problems the wholesome management of nutrition is essential at all stages of life. The World Health Organization recommends that children in developing countries should be exclusively breastfed up to 6 months of age after that weaning is to be started gradually but breast feed should continue to be the main food of the baby even when weaning is started.

According to WHO/UNICEF document, at least one million deaths per year from diarrhea and infections are absolutely preventable through breastfeeding<sup>15</sup>. So, exclusive breastfeeding deserves encouragement at least for six months and preferably for up to 2 years<sup>15</sup>. It is recommended that all infants be exclusively breastfed for 6 months and adequate complementary foods be added after that<sup>16</sup>. Just after six months age is the most appropriate time for introducing complementary feeding i.e. to start weaning process along with mother's milk to fulfill the nutritional requirement of infant.

*Acharya Vagbhata* has also explained that when tooth eruption starts baby should be start to taken off from the mother's breast milk called *stanayapanayana*<sup>17</sup> and after that cow's milk or goat's milk medicated with *laghu pancamula* or *pippali* should be slowly introduced. As the child grows in a very rapid speed in the initial few months after sometime he requires food items beyond mother's milk i.e. wholesome food should be introduced slowly. Classical texts of *Ayurveda*, advises the intake of *Stanya* from the day of birth continued until the age of two years. After 6 months of age introduction of fruit and fruit juices recommended as *phalaprashana samskara*<sup>18</sup> because mother's milk is deficient in vitamin C, D & iron. Fruits & fruit juices help in supplementing this extra nutrition along with the *agnideepaka* property (increases the digestive capacity) and relieve on constipation. Thereby the growing infant requires adequate amounts of milk as it the only factor for causing *deha pushti*, *dhatu vardhana* and *bala vardhana*. In *Ayurveda*, *phalaprashana*<sup>18</sup> & *Annaprashana Samsakara*<sup>19</sup> advised as weaning. According to NFHS-3, introduction of complementary feeding along with continued breast feeding in children of 6-8 months is only about 55%.

It is important for children to eat a variety of foods that can provide them with the proper intake of carbohydrates, protein, fat, minerals, and vitamins. Each child grows at a unique rate and therefore has unique nutritional needs. Children's behaviour and food preferences are also unique. The nutritional needs of children should be balanced with their food likes and dislikes<sup>20</sup>. As children develop, they require the same foods as adults i.e. whole grains, a wide variety of fresh fruits and vegetables, calcium for growing bones, healthy proteins, healthy fats (MUFA, PUFA) are needed to support the growing body of a child. Other than this in teenager age a child needs special nutrition because kids gain 50% of adult weight and 20% height during adolescence. A positive attitude to healthy eating should be encouraged from an early stage of life.

## CONCLUSION

In India around 3/4th of our pediatric population are suffering from one or more nutritional deficiency or some extent of malnutrition. In India, NFHS-3(2005-2006) reports a prevalence of 48% for stunting, 43% for underweight and 20% for wasting in under five children<sup>21</sup>. Lots of attempts

have been made to minimize this at National level. For this the immunization plans and milk distribution or mid-day meal to school going children alone will not be sufficient. So, the wholesome management of nutrition is essential at all stages of life and this concept is also favored by our ancient indigenous medicine system *Ayurveda*. It suggest balanced intake of *Ahara* (diet) to fulfill the nutritional requirement of body at every stage of life and to maintain the proper growth & development of children in early age is the best method to prevent nutritional deficiency disorders but other that it *Agnideepana*, *Balya* and *Brumhana Chikitsa*<sup>22</sup> are also interesting and useful principles to treat undernourished children. Along with above line of treatment, mild purification measures i.e., *mrdu samshodhana*<sup>23</sup> should be adopted to enhance the quality of absorption and assimilation of nutrients provided through *Brumhana & Balya Chikitsa* by using medications like *Kushmandavleha*<sup>24</sup> etc. and daily diet having balanced component of protein, fat, carbohydrate and required minerals. Nutritional concepts of *Ayurveda* are applicable at all stages of life which helps to prevent nutrition related morbidity in infants and children.

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