

## UNDERSTANDING PEM IN AYURVEDA WITH MANAGEMENT

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### ABSTRACT

PEM (protein energy malnutrition) is one of the diseases related to *annavahasrotas*. It is a type of malnutrition resulting from deficiency of proteins and calories in food over a long period of time. It is very common among young children (usually below 5 years). India ranked 2nd after Bangladesh in world in malnutrition of children. Being a developing country, occurrence of different types of infection is very common which increases the demand of protein and other nutrients while decreasing their absorption and utilization. It is a vicious cycle. Infection contributing to malnutrition and malnutrition contributing to recurrent infection. PEM is not only important cause of childhood morbidity and mortality but also leads to permanent impairment of physical and possibly of mental growth of those who survive. PEM has been identified as a major health and nutrition problem in India. Ayurveda due to its holistic approach can do very much in this field. Management can be done by *Santarpana chikitsa*. *Santarpana chikitsa* implies on 2 things- correction of *agni* and nourishment of *dhatu*. Ayurvedic management of disease not only includes drug preparation but also include dietary preparation.

**Keywords-** gastro intestinal, malnutrition, *santarpana*.

### INTRODUCTION

The World Health Organization (WHO) defines malnutrition as "the cellular imbalance between the supply of nutrients and energy and the body's demand for them to ensure growth, maintenance, and specific functions." The term protein-energy malnutrition (PEM) applies to a group of related disorders that include

marasmus and kwashiorkor. It is a major public health problem in India. It affects particularly the preschool children (<6 years) with its dire consequences ranging from physical to cognitive growth and susceptibility to infection. This affects the child at the most crucial period of time of development which

can lead to permanent impairment in later life. PEM is measured in terms of underweight (low weight for age), stunting (low height for age) and wasting (low weight for height). The prevalence of stunting among under five is 48% (moderate and severe) and wasting is 20% (moderate and severe) and with an underweight prevalence of 43% (moderate and severe), it is the highest in the world.

Under nutrition makes the child susceptible to infection and complements its effect in contributing to child mortality. This accounts for 22% of the burden of disease in India and adversely affects the economic growth of the country with an estimated adult productivity loss of 1.4% of gross domestic product (GDP). Although protein-energy malnutrition affects virtually every organ system, this article primarily focuses on its cutaneous manifestations. Patients with protein-energy malnutrition may also have deficiencies of vitamins, essential fatty acids, and trace elements.

#### **AIMS AND OBJECTIVES-**

To study protein energy malnutrition under Ayurvedic aspect.

To study the Classical similarity of protein energy malnutrition with literature.

Management of protein energy malnutrition in Ayurveda.

#### **AYURVEDIC VIEW-**

Lower socio-economic condition, higher birth order, lower birth interval and faulty feeding habits are root cause of malnutrition in children. Infant and child nutrition especially in the first few years of life is crucial. India evidences major concern regarding childhood malnutrition despite

enormous efforts. It causes more than half of the nearly 11 million deaths each year among children under age five.

Ayurveda emphasizes good nutrition at every stage of life season, as well as daily routine, in order to preserve health of mother and offspring. Nutritional aspects of Ayurveda are care of pregnant lady, infant nutrition, breast feeding, complementary foods and proper weaning with due applied aspects.

Ancient *Acharyas* explained diseases related to nutritional deficiency such as *Phakka*, *Parigarbhika*, *Balashosha* etc in different *samhitas*. Malnutrition is such a condition where children fail to maintain natural body capacities such as growth, resisting power to infections as well as recovering from disease, learning and physical activities. Malnutrition is viewed under *Apatarpanajanya vyadhis* in *Ayurveda*. Based on severity and aetiology they may be considered as *Karshya*, *Phakka*, *Parigarbhika* and *Balashosha*. Ayurvedic nutritional principles suitable to the current era are essential for management of malnutrition in children.

#### **ETIOLOGY OF MALNUTRITION IN AYURVEDA-<sup>1</sup>**

In Ayurveda it is mentioned that *ruksha annapana* (food which causes dryness), excessive intake of *Kashaya* (Astringent), *Katu* (spicy) and *Tikta* (Bitter) Rasa, *alpabhojana* (inadequate food), *pramitashana* (intake of nutritionally deficient food), *anashana* (absolute no food intake), *langhana* (Fasting), *ativyayam* (excessive exercise), *malamutradinigraha* (Suppression of natural urges), *vatasevana* (excessive exposure to wind), *atapasevana* (Excessive exposure to sunlight), *atibhargamana*, *atichinta* (worry),

*atikrodha* (anger), and *atibhaya* (fear) can be causative factor for malnutrition.<sup>2,3,4</sup>

## MALNUTRITION DESCRIPTION IN AYURVEDA-

In different *samhitas* of Ayurveda these 4 diseases are described that are near to malnutrition as mentioned in modern medicine.<sup>5</sup>

1. *Balshosha*: The causes of *Balshosha* are *Shlaishmika annasevana* (Excessive energy dense food), *Shitambu* (cold liquid items) and *diva swapna* (excessive day sleep). These factors can create impairment of Agni.

Clinical features of *Balshosha* are *Arochaka* (reduced digestive capacity), *Pratishyaya* (Running nose), *Jwara* (fever) and *Kasa* (Cough); and at last baby may lead to *Shosha* (Emaciation)<sup>6,7</sup>

2. *Phakkaroga*: In *Phakkaroga*, *Ksheerajphakka*, *Garbhajphakka* and *vyadhiphakka* are described. *Ksheerajphakka* is due to intake of *Shlaishmika dughdha*.

*VyadhijaPhakka* is malnutrition condition resultant of any diseases as *Graharoga* etc. *Garbhajphakka* is due to feeding of baby by pregnant lady<sup>8</sup>.

Clinical features of *Phakkaroga* are wasting of buttocks, upper limbs and thighs, Pot belly abdomen, head appears big due to relatively wasting in body parts and baby is unable to walk

3. *Karshya*: *Karshya* is under nutrition condition due to reduced food intake of baby resulting from less intake, if mother use *vatavardhakahara-vihara* and baby take *vataushitstanya*. Ultimately, baby become malnourished

4. *Parigarbhika*: If any baby is on breast milk of pregnant women then *parigarbhika roga* can occur and that milk have poor nutrients.

Clinical features of *Parigarbhika roga* are cough, impaired digestive capacity, vomiting, fever and anorexia.

### Diagnostic Criteria-

The diagnosis is mainly based on Indian Academy of Pediatrics (IAP) classification of malnutrition.<sup>9</sup>

Weight for age (%)	Grade
100-80%	- normal nutritional status
79-70%	- grade 1, mild malnutrition
69-60%	- grade 2, moderate malnutrition
59-50%	- grade 3, severe malnutrition
<50%	- grade 4, very severe malnutrition

Weight for age is an indicator of total malnutrition /underweight.

$$\text{Weight for age (\%)} = \frac{\text{current weight of the child (in kg)} \times 100}{\text{Expected weight of the child for that age}}$$

### AYURVEDIC MANAGEMENT-

*Ayurveda* can do very much in this field due to its holistic approach. Management principles

can be classified in two categories i.e. *Santarpana* and *Aptarpana*. PEM is a deficiency disease and it could be managed by

*Santarpana*. Principle of *santarpana chikitsa* is based on two factors, correction of *Agni* (digestive power) and nourishment of *Dhatu*.

**Balshosha (marasmus, PEM) –**

nutritional intervention to mother, *panchakarma-abhyanga with oil*.

Drug intervention- improves appetite, *snehapana* to improve weight and strength, symptomatic management, wholesome nutritive food.

**Parigarbhika (kwashiorkar)-**

Drug intervention- improve the appetite, wholesome nutritive food.

**Phakkaroga (osteomalacia) –**

*Shodhana* of mother, *snehana* for a week followed by *virechana*, oil massage (*abhyanga*).

Drug intervention- medicated milk and ghee along with wholesome nutritive food.

Supportive therapy- practice of walking with the help of tricycle (*tripaadhratha chakra*).

## DISCUSSION

The above article emphasizes on the Ayurvedic dealing of the disease what so ever is the cause. Ayurveda not only deals with the malnutrition in child, in fact it provides a description of healthy daily regimen of child bearing mothers, which can be very effective in preventing malnutrition in child in the womb as well as after birth.

People with low socio economic status can also follow these easy and not so costly regimen as Ayurveda is science of herbs and most of them are easily accessible to common population

## CONCLUSION

Management principles can be classified in two categories i.e. *Santarpana* and *Aptarpana*. In other words, bodily humors

which are increased in their amount should be decreased and which are decreased in amount, should be increased. PEM is a deficiency disease and it could be managed by *Santarpana Manth*<sup>10</sup>, which fulfill both the factors of correction of *Agni* and nourishment of *Dhatu*. *Ayurvedic* management of diseases is not only by including drug preparation but including dietary preparation also.

## REFERENCES

1. Shastri Kasinath & Chaturvedi Gorakhnath, Ed. Charak Samhita of Agnivesha revised by Charaka & Drudhabala with introduction of Srisatya Narayana Sastri, Elaborated Vidyotini Hindi commentary, Vol, Chaukhamba Bharti Academy, Varanasi (India), chapter 21 Sutra Sthana (Reprint2007).
2. Sushruta Samhita edited with Ayurveda Tatva Sandipika Hindi commentary by Kaviraj Ambikadutt Shastri 1<sup>st</sup> edition, Published by-Chaukhamba Bharati Sanskrit Sansthan Varanasi 2005, page no. 33
3. Sushruta Samhita edited with Ayurveda Tatva Sardinia Hindi commentary by Kaviraj AmbikaduttShastri 1<sup>st</sup> edition, Published by-Chaukhamba Bharati Sanskrit Sansthan Varanasi 2005, page no. 63
4. Agnivesha, Charak Samhita Ayurveda Dipika Ayushi Hindi commentary, 1<sup>st</sup> edition Chaukhamba Bharati Sanskrit Sansthan Varanasi 2005, page no. 311
5. Nutritional deficiency disorders in pediatrics, an ayurvedic perspective, TikoleRushikesh V et int J. Rres Ayurveda pharm, julaug 2013
6. Vinod K Paul, Arvind Bagga (2013) Ghai Essential Pediatrics (8<sup>th</sup> edition), CBS

- publishers and distributors Pvt. Ltd. New Delhi nutrition, page no. 97
7. Murthy KRS Vagbhatta Astanga Hridayam edition 9<sup>th</sup> 2013, Khaukhambakrishnadas academy Varanasi, Uttara Sthanach. 2/44-45-page no. 20-21
  8. Kaviraj Atridev Gupta, Vagbhatta Astanga Samgrahavol 2 hindi commentary, edition 2005 Chaukhamba Krishnadas academy Varanasi, Uttara Sthanach. 2/46-page no. 190
  9. Kaviraj Atridev Gupta, Vagbhatta Astanga Samgrahavol 2 hindi commentary, edition 2005 Chaukhamba Krishnadas academy Varanasi, Uttara Sthanach. 1/38-page no. 180-181
  10. Shastri Kasinath & Chaturvedi Gorakhnath, Ed. Charak Samhita of Agnivesha revised by Charaka & Drudhabala with introduction of Srisatya Narayana Sastri, Elaborated Vidyotini Hindi commentary, Vol 1, Chaukhambha Bharti Academy, Varanasi (India), chapter 23 Sutra Sthana (Reprint2007).

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**Source of Support: Nil**

**Conflict Of Interest: None Declared**

How to cite this URL: Dixit Megha Et Al: Understanding Pem In Ayurveda With Management. International Ayurvedic Medical Journal {online} 2017 {cited December,2016 - January, 2017} Available from: [http://www.iamj.in/posts/images/upload/422\\_426.pdf](http://www.iamj.in/posts/images/upload/422_426.pdf)