ROLE OF SNEHANA IN THE MANAGEMENT OF PROTEIN ENERGY MALNUTRITION IN CHILDREN

Vishwakarma Pawan Kumar¹, Sharma Deepa², Verma Reetesh Kumar³, Rai Amit Kumar⁴ Tiwari R. P.⁵

¹Assistant Professor, Dept. of Kaumarbhritya, Bundelkhand Govt. Ayurvedic College & Hospital, Jhansi, Uttar Pradesh, India
²Research Officer (Ay.), Regional Ayurveda Research Institute for Drug Development, Unit of CCRAS, Gwalior, Madhya Pradesh, India
³Assistant Professor, Dept. of Kaumarbhritya, Govt. Ayurvedic College, Gwalior, Madhya Pradesh, India
⁴Research Officer (Ay.), Regional Ayurveda Research Institute, Unit of CCRAS, Ranikhet, Uttarkhand, India
⁵Reader & H.O.D, Dept. of Kaumarbhritya, Govt. Auto. Ayurvedic College, Rewa, Madhya Pradesh, India

Email: dr.pkvishwakarma@gmail.com

ABSTRACT
Protein energy malnutrition is a major public health problem in India that affects children in their crucial period of growth and development. Only supplementation of food items is not sufficient but many other things also play an important role in its management. Understanding the root cause of PEM, Prakriti, Dosha, Dushya etc. of the patient, following dietary rules described in Ayurveda are also important for its management. PEM can be correlated with Karshya roga, Balshosha, Parigarbhik, Fakka roga in Ayurveda. Sneha and Snehana chikitsa which is a part of Shadopkram play an effective role by its Deepan, Santarpan, immunobooster, calorie enhancer and anti-infective properties.

Keywords: Snehana, PEM, Protein Energy Malnutrition

INTRODUCTION
Protein Energy Malnutrition (PEM) or Protein Energy Under nutrition is a major public health problem in India that affects children in their most important period of growth and development. According to UNICEF the rate of malnutrition remains alarming, stunting is declining too slowly while wasting still impacts the lives of too many young children¹. More than one-third of the world's malnourished children live in India, among these, half of them under three years of age are underweight². It is measured in terms of low weight for age, stunting and wasting. It commonly occurs in infants who are born in malnourished backgrounds and in pre-school children due to-

- Low nutritional reserve especially premature
- Poor nutritional status of the mother producing low birth weight child. Low birth weight baby is susceptible for infections which further lead to poor weight gain. This vicious cycle ultimately run and aggravate the condition.
High BMR for their size
Higher requirement for the growth
High incidence of infections due to poor immunity

PEM produces wide spectrum of changes from invisible to mild to severe including marasmus and kwashiorkor. The young child tries to adapt physiologically to the state of malnutrition, if not managed ends with pathological dysadaptation. It is not only an important cause of childhood morbidity and mortality but also leads to permanent impairment of physical growth and possibility of ill mental growth of those who survive.

PEM IN AYURVEDIC ASPECT
Protein Energy Malnutrition generally comes under Apatarpanajanya vyadhi in Ayurveda. Based on severity and etiology it can be correlated with
- Karshya roga
- Balshosha
- Parigarbhik
- Fakka roga

The whole range of pathological conditions arising due to lack of protein and calories, commonly associated with infection comes under these conditions.

AETIOPATHOGENESIS OF PEM
Main causes of PEM are:
- Poverty or poor socioeconomic status
- Ill maternal heath, low birth interval
- Faulty feeding habits
- Infections
- Malabsorption
- Iatrogenic

According to Ayurvedic texts the main causes are
- Apatarpanajanya ahar vihar such as ruksha, excessive intake of Kashaya, Katu, Tikta dravya, alpabhojana, pramitashana, anashana, langhana, malamutradingraha, atikrodha, atibhaya, vatasevana
- Shlaishmika stanyay sevana, excessive sleep and Shitambu causes Balshosha. These factors cause srotorodha in rasavahi srotos.
- Anath balak, stanyadustui, garbha and vyadhi causes fakka roga
- If baby is on breast milk of pregnant women then parigarbhika roga can occur.
- Feeding of vata dosha vitiated milk especially vairasya stanyadusti. This type of vitiated milk is not tasty, after feeding it infant doesn’t gain weight properly becoming emaciated.

PRINCIPLE OF MANAGEMENT ACCORDING TO AYURVEDA
- Laghu cha santarpana chikitsa. The medication or the food items that are easy to digest and nourish the body are more beneficial.
- Agni deepan chikitsa drugs which increase digestive power.
- Shrotoshodhak chikitsa because in various cases of nutritional disorder srotorodha is an important cause.
- Initiation of milk-based diet in starting or aushadh siddha ksheer
- Jeevaniya, balya and brimhana chikitsa
- Santarpana chikitsa focuses on 2 ways- correction of Agni and nourishment of Dhatus. Sarpi (ghee) possess both qualities and when sanskarit/medicated with other drugs can pacify all vitiated dosha.
- Use of dietetic rules (ahara vidhi vidhan) as prescribed in Ayurveda.

WHAT IS SNEHANA
Use of sneha externally or internally to the body is called Snehana. It imparts softness and removes dryness of the body. It also comes under shada upakrama and is a method of purvakarma which is essential before shodhana karma (detoxification therapy). It helps to move the dosha from shakha (dhatus) to kosha (GIT) and can be excreted from their nearest route of excretion. Acharya Charaka defines Snehana as the process which
produces sneha, vishyanda, mardava (softness) and kleda in the body\textsuperscript{15}. Acharya Chakrapani attempts to elucidate the meaning of vishyanda as vilyana i.e. solubility\textsuperscript{15}. According to acharya Sushruta, sneha is the sara (essence) of the human body and bala depends upon the sneha of body \textsuperscript{16}.

**Internal Snehana**

Sneha pacifies the Vata Dosha, softens various body organs and helps in disintegrating the cumulated Dosha or Mala\textsuperscript{17}. Sneha brings the cumulated Dosha from Shakha (dhatus) to Koshtha (mahasrotos) for their easy removal just like water rinses out smoothly as on an oil applied utensil. Dosha also rinse out easily in the Snigdha body. Sneha liquefies the dosha sticking in the srotas and brings it to Kostha ensuring proper circulation of Vata. Appropriate use of snehana produces

- Deeptagni (improves digestion)
- Parishudha koshtha (purifies gastro-intestinal tract)
- Pratayagra dhatu (renovation of body tissues)
- Bala (improves body strength)
- Varna (improvement of skin texture)
- Mandajara (delay ageing)

**External Snehana**

The Sanskrit word Sneha denotes both Sneha dravya (taila, ghrita, vasa, majja) and love. The effects of Abhyanga are similar. The Properties of Abhyanga as per Ayurvedic texts are-

1. Jaraahara: Abhyanga counteracts the aging process.
2. Shramahara: Abhyanga helps in relaxation of the tensile muscles.
3. Vatahara: Abhyanga is done with sneha dravyas which are having potent Vathamaka properties.\textsuperscript{21}
4. Drishti prasadakara: Abhyanga especially pada abhyanga or foot massage improves quality of eye sight.\textsuperscript{22}
5. Pushthikara: Abhyanga nourishes various dhatus.\textsuperscript{21}
6. Ayushyakara: Abhyanga increases lifespan.
7. Swapnakara: Abhyanga relaxes the body and mind so helps in inducing sound sleep.
8. Twak dandhyakara: Abhyanga makes skin intact and maintains its healthy status.\textsuperscript{21}
10. Abhigata sahatva: Persons who regularly do Abhyanga are not affected much by any type of trauma.
11. Kapha-Vata nirodhana: Sushruta says that Abhyanga pacifies both Kapha and Vata.
12. Mrujavarna balapradha: Abhyanga improves complexion of body and increases its strength. Tvacha is a seat of sparshanendriya and it is obvious that abhyanga also pacifies vitiating Vata dosha in tvacha. Bhrajaka Pitta located in the skin which imparts the characteristics of color and luster, so it is termed as Bhrajaka. Acharya Charaka has mentioned that the production of normal and abnormal temperature of the body as well as the normal and abnormal color of the skin is due to Pitta.

Massage increases circulation, especially to nerve endings and tones up muscle endings. Toning of the muscles induces strength in weak muscles. Massage act as calming for the nerves, lubricates the joints ensuring proper movements of body parts, increases mental alertness, improves in elimination of impurities from the body. Massage or touching has been found to increase the secretion of growth hormone\textsuperscript{23}

**SNEHA PRAVICHARANA**

Sneha can be used in various forms of meal, leha, abhyjanjana which are known as sneha ‘pravicharna. According to Acharya Charak these are of twenty-four types whereas Acharya Kashyapa describes only twenty types. Acharya Kashyapa also added three specific modes of pravicharna namely urdava karma, adho karma and peya. Different type of formulations can be applied according to oak, ritu, roga and purusha satmya.
ROLE OF SNEHANA IN PEM
Probable mode of action can be described as:

- **Agnideepan** activity
- Act as *shodhana* (purifying agent). There is excess production of mala in the body of malnourished child.
- Maintains integrity of epithelial surfaces in the body.
- Having more calories than other food items gives adequate energy.
- Helps in absorbing fat-soluble A, D, E, and K vitamins
- Palatability
- Prevents body from hypothermia
- **Santarpana** activity
- As free radical scavenger
- There is least chance of arising oedema by the use of ghrita such as Bramhi grita, kalyanak ghrita, shatapala ghrita or samvardhan ghrita in the management of PEM because ghrita also act as mild diuretic. After digestion it dissociates into fatty acid and glycerol which act as mild diuretic so there is no chances of complications such as pseudotumor cerebri like symptoms during the management of PEM.
- It acts as solvent or vehicle so that medicine or nutrients can be administered easily in children.

Acharya *Kashyapa* mentioned use of ghrita especially in younger age especially upto to the age of eight month showing its importance in that age group.

COMMONLY USED SNEHA IN CASE OF NUTRITIONAL DISORDERS

- **Bramhi ghrita**
- **Kalyanak ghrita**
- **Amrita ghrita**
- **Samvardhana ghrita**
- **Coconut oil**

As oil supplementation for PEM, coconut oil is found to be most effective compared than other oils due to is better absorption as it contains medium chain fatty acids and has low omega-6 to omega-3 fatty acid ratio.

- **Raj tail** used for massage
- **Vyoshadya ghrita**

CONCLUSION
Protein energy malnutrition is a common disorder in developing countries that affects children in their crucial period of growth and development. It can be correlated with *Karshya roga Balshosha, Parigarbhik, Fakka roga*. The root cause of PEM is poverty, faulty dietary habits, *grahani dosha* and infections. Ayurveda and it dietary principles play an important role in the management of PEM. *Sneha* and *Snehana chikitsa* which is a part of *shadopkram* possesses *deepan, santarpan*, immunobooster, calorie enhancer and anti-infective properties. Thus, *Snehana* can be useful in management of PEM.

REFERENCES
1. https://data.unicef.org/topic/nutrition/malnutrition/
6. Astanga Samgraha of Vraddha Vagbhatta with the SASILEKHA Sanskrit Commentary by Indu, Prologue in Sanskrit & English By Prof. Jyotir Mitra, Published by Chaukhambha Sanskrita Series Office, Varanasi, 2nd Edi. 2008, Uttartantra 1/38
7. Kashyap Samhita by Pandit Hemraja sharma with vidyotini hindi commentary by sri satyapala
Bhisagacharya, Chaukhamba Sanskrit Sansthana, Varanasi, Reprint 2008, Fakka chikitsa addhyaya


11. Astanga Samgraha of Vraddha Vagbhata with the SASILEKHA Sanskrit Commentary by Indu, Prologue in Sanskrit & English By Prof. Jyotir Mitra, Published by Chaukhambha Sanskrita Series Office, Varanasi, 2nd Edi. 2008, Uttartantra 2/64


Source of Support: Nil
Conflict of Interest: None Declared

How to cite this URL: Vishwakarma Pawan Kumar et al: Role Of Snehana In The Management Of Protein Energy Malnutrition In Children. International Ayurvedic Medical Journal {online} 2019 {cited April, 2019} Available from: http://www.iamj.in/posts/images/upload/589_593.pdf