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Conceptual Review On *Karshya* W.S.R To Protein Energy Malnutrition (PEM) In Childhood Age.

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ABSTRACT

Ayurveda is primarily based on preventive aspect initially rather than curative. Among the *Trya-upastambha* (*aahara, nidra, bramha-charya*), *aahar* (diet) is considered as the first pillar. The various and common health problem can be overcome through nutritious diet. Nutritional disorder has been described in random pattern in *Ayurvedic* texts. *Karshya* (nutritional disorders) disease is familiar to under-nutrition. PEM is a type of malnutrition resulting from deficiency of protein and calories both in food over a longer period of time. Therefore, PEM is one of the diseases related to *annavahasrotas* (channel for transportation, digestion) The common age of incidence is usually below 5 years of age. India occupied 2nd rank after Bangladesh in the world in malnutrition of children. In *Ayurvedic* text, diseases such as *Parigarbhika*, *Phakka* (*Rickets*), *Balashosha* (*Marasmus*) are described under *karshya roga*. Hence, *karshya roga* can be co-related to malnutrition.

Key Words: *Karshya*, *Trya-upastambha*, Protein energy malnutrition, *Annavahasrotas*.

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INTRODUCTION:

Under-nutrition is a condition in which there is inadequate consumption, poor absorption or excessive loss of nutrients. Sometimes malnutrition and protein energy malnutrition are used interchangeably with under-nutrition¹. Under-nutrition conditions affect the child at the most crucial period of time of growth and development which can lead to permanent defect in life. The term PEM applies to both group of disorder namely marasmus and kwashiorkor. PEM is measured in

terms of underweight (low weight for age), stunting (low height for age) and wasting (low weight for height).

According to *Acharya Charaka* excessive lean (*Atikrushya*) persons are described under eight despicable persons (*Astha-nindttiya Purusha*)². Food (*Aahara*) is one of the three sub-pillars as per *Ayurvedic* text. The transforming unit from food into nutrition is termed as *agni*.

AIMS & OBJECTIVES:

1. To study the different form of *Karshya*. (nutritional disorders)
2. To study the PEM under the *Ayurvedic* scenario

MATERIALS AND METHODS:

Etiology of *Karshya*:

In *Ayurveda* there is very classical etiology mentioned for *karshya* namely *Rukshanna pana sevana* (Indulgence in rough food and drinks), *Langhana* (Fasting), *Pramitashana* (Little diet), *Kriyatiyoga* (Excessive subjection to evacuative therapy), *Shoka* (Grief), *Chinta* (Worries), *Bhaya* (fear), *Shrama* (excessive physical and mental activity), *Vega- Nidra-Trusha -Kshudha -nigraha* (Suppression of natural urges, such as - sleep thirst and hunger), *Atishrama*, *Ati maithuna*, *Atisnana abhyasa* (Excessive exercise, sexual intercourse, excess bath), *Ruksha udvartan* (Excess non - unctuous anointing to the persons), *Snana abhyasa* (Indulgence in bath), *Prakruti* (Constitution), *Beeja Dosha* (heredity), *Jara* (Old age), *Vikar-anushaya* (Continued disorder) and *Krodha* (Anger) make a person lean make the person excessive lean⁴.

Sign and Symptoms of *Karshya*:

According to *Acharya Charaka*, lean person has he lean person has *Shushka-sphic, udar, greeva*

(Dried up buttocks, abdomen, neck), *Dhamanijala santataha* (Prominent vascular network) *Twagasthi shesho*, *Ati krusha* (Remnant of skin and bone), *Sthoola parva* (Thick joints), *Vyayam Atisauhityam* (The over lean does not tolerate physical exercise, over saturation), *Kshutpipasamay-aushadham* (dose not tolerate high in toxicity of hunger, thirst, disease, drugs).⁵

Malnutrition in *Ayurveda*:

Mainly four different diseases are mentioned in *Ayurvedic Samhitas* which are nearer to malnutrition as mentioned in modern sciences.

1. ***Karshya***: This is an under nutrition condition due to inadequate food intake by baby and baby may be also affected if mother is taking *vatavardhakahara* as well as baby take *vataadhustistanya*. Finally, baby becomes malnourished⁶.
2. ***Balshosha***: As per *Ayurvedic* classics, *Shlaishmikannasevana* (Excessive energy dense food), *Shitambu* (drinking cold water) and *Divaswapna*. (excessive day

sleep), These all etiology can impair in the *agni*. The clinical manifestation are *Arochaka* (reduced appetite), *Pratishyaya* (Running nose), *Jwara* and *Kasa* and at last baby may lead to *Shosha* (Emaciation)⁷.

3. **Phakka** roga: Three different type of *Phakka roga* has been mentioned in *Ayurvedic* text namely *Ksheerajphakkawet* (nurse having breast milk vitiated by Kapha) *Garbhajphakka* and *Vyadhijphakka* (malnutrition condition resultant of chronic disease.) *Ksheerajphakka* is due to

shlaishmik dugdha, *Vyadhijphakka* is due to malnutrition or *Grahroga* etc. *Garbhajphakka* is due to feeding of baby by pregnant women. The clinical manifestations are wasting upper limb, thigh and buttocks. Appearance of pot belly abdomen as well as large head due to relative wasting in body parts and baby becomes unable to walk⁸.

4. **Parigarbhika**: If baby is on breastfeeding of pregnant women then *Parigarbhikroga* can occur very easily. That milk constitutes poor nutrition. Baby shows clinical feature of cough, impaired digestive capacity, vomiting, fever, anorexia⁹.

Diagnostic Criteria-

IAP Classification of Malnutrition¹⁰:

Weight for age(%)	Grade
100-80%	Grade 0 (Normal nutrition 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.

Weight for age (%) – { weight of child (kg) /expected weight of child for that age} multiplied by 100.

DISCUSSION

In *Ayurvedic* text, *Karshya* is a nutritional disorder which is closer to malnutrition. According to *Acharya Charak Atikarshya* persons are mentioned under *Astninditiya*(eight undesirable person) . *Karshya*, *Balashosh*, *Parigarbhika*, *Phakka roga* are related to each other and similar to protein energy malnutrition (PEM) in modern science. The *samprapti* (Pathogenesis) of *Karshya* is presented

like this *Nidan sevan*(etiological factor)-*Vataprakopaka-Shoshita Rasadhatu-All Dhatu Uttapati alpa-Karshya Uttapti*. The line of treatment is to maintain the *agni-Santarpan* and *Brumhana* (nourishment).

CONCLUSION

Karshya is described in *Ayurvedic samhita* however it is described as Protein Energy Malnutrition (PEM) in modern sciences. A systemic study of *Karshya*, *Balashosha*, *Parigarbhika*, *Phakka roga* provide insight into hazards of nutritional

deficiency and shows different aspect of nutritional deficiency and proper understanding of etiopathogenesis of condition provide valuable key for the effective management

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