Review o Karshya and PEM in Ayurveda

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Abstract:
Ayurveda is mainly based on preventive aspect first rather than curative. Aahara (Food) is considered as the first pillar among three Nidra and Brahmacharya being other two. Many common health problems can be prevented through nutritious diet. Nutritional disorders are described in scattered manner in Ayurveda texts. Karshya (disease) is similar to undernutrition. 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. 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. Disease such as Parigarbhika, Phakka, Balashosha, and Karshyadescibe by various author of Ayurveda can also co-related to malnutrition based on the clinical features these diseases are related to each other. This article highlights the Ayurvedic view of nutritional disorder like protein energy malnutrition.

Keywords: Karshya, Undernutrition, Protein energy malnutrition.

Introduction:
Undernutrition is a condition in which there is inadequate consumption, poor absorption or excessive loss of nutrients. Sometimes malnutrition and protein energy malnutrition (PEM) are used interchangeably with undernutrition. The term 'protein-energy malnutrition (PEM)' applies to a group of related disorders that include marasmus and kwashiorkor. 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).

Food (Aahara) is one of the three sub-pillars of life as per Ayurvedic classics. The transforming unit from 'food' into nutrition is termed as 'Agni' or digestive fire, which forms the edifice upon which the Ayurvedic system is built. According to Acharya Charaka over lean (Atikrushya) persons are described under eight despicable persons (Ashtau-ninditty Purusha).

Aims And Objectives
- To study the Karshya.
- To study protein energy malnutrition under Ayurvedic aspect.

Etiology of Karshya And Malnutrition In Ayurveda:
In Ayurveda it is mentioned that Rukshannapanasevana (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), Rukshaudvartan (Excess non - unctuous anointing to the persons), Sannaabhyasa (Indulgence in bath), Prakruti (Constitution), Beeja Dosha (heredity), Jara (Old age), Vikar-anushaya (Continued disorder) and Krodha (Anger) make a person lean.
Signs And Symptoms of Karshya:
The lean person has Shushka-sphic, udar, greeva(Dried up buttocks, abdomen, neck), Dhamanijalasantarataha(Prominent vascular network) Twagasthishesho, Atikrusha(Remnant of skin and bone), Sthoolaparva(Thick joints), VyayamAtisauhityam(The over lean does not tolerate physical exercise, over saturation), Kshutpipasamay-aushadham(dose not tolerate high in toxicity of hunger, thirst, disease, drugs).

Karshya Samprapti (Pathogenesis of Disease):

Receive etiological factor diet and physical work 
(NidanaSevana – VatavardhakaAahara-Vihara)

Vitiation of Vata ➔ Agni Dusti ➔ Formation of Ama

Dhatu Kshaya

Inadequate Rasa Dhatu and improper absorption due to formation of Samaahara

ShoshitaRasadhatu
(Malformation of Rasa Dhatu)

Under nourish Rasadhatu (Shushka) circulate in whole body

Alpaposhan of Dhatu

Karshya6,12

Malnutrition Description In Ayurveda:
There are 4 diseases described in different Samhitas of Ayurveda that are near to malnutrition as mentioned in modern medicine.

1. 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 vatadushitstanya. Ultimately, baby become malnourished.7

2. Balshosha: The causes of Balshosha are Shlaishmikaannasevana(Excessive energy dense food), Shitambu(cold liquid items) and diva swapna(excessive day sleep). These factors can create impairment of Agni. Signs and Symptoms of Balshosha are Arochaka(reduced digestive capacity), Pratishyaya(Running nose), Jwara(fever)and Kasa(Cough); and at last baby maylead to Shosha(Emaciation).8

3. Parigarbhika: If any baby is on breast milk of pregnant women then parigarbhikaroga can occur and that milk have poor nutrients.Signs and Symptoms of Parigarbhikarogaa are cough, impaired digestive capacity, vomiting, fever and anorexia.10

4. Phakkaroga: In Phakkaroga, Ksheerajphakka, Garbahajphakka and vyadhiphakka are described. Ksheerajphakka is due to intake of Shlaishmikadugdha. Vyadhiphakka malnutrition condition resultant of any diseases as Graharoga etc. Garbahajphakka due to feeding of baby by pregnant lady.
Signs and Symptoms 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.  

Diagnostic Criteria-

Iap Classification Of Malnutrition: This classification is based on weight for age values.

<table>
<thead>
<tr>
<th>Weight for age (%)</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>100-80%</td>
<td>normal nutritional status</td>
</tr>
<tr>
<td>79-70%</td>
<td>grade 1, mild malnutrition</td>
</tr>
<tr>
<td>69-60%</td>
<td>grade 2, moderate malnutrition</td>
</tr>
<tr>
<td>59-50%</td>
<td>grade 3, severe malnutrition</td>
</tr>
<tr>
<td>&lt;50%</td>
<td>grade 4, very severe malnutrition</td>
</tr>
</tbody>
</table>

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

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

Discussion

Karshya is a nutritional disorder described in Ayurveda Samhita and it is possible related to Malnutrition. According to Acharya Charaka Ati Karshya persons are described under Ashtauninditya (eight desplicable persons). In Ayurveda no much description is found regarding Karshya especially in Children. Karshya, Balshosha, Parigarbhika, Phakkaroga are the disease described in Ayurveda texts is related to each other and possibly correlate to protein energy malnutrition (PEM). Alpashana and Vishamashana; Vihara Dosha like Atishrama and Manasika Bhava like Shoka, Bhaya, Krodhaare the main etiological factors for Karshya. The Samprapti of Karshya like this: Nidana Sevana → Vataprakopa → Shoshita Rasadhatu → All Dhatu Utpati Alpa → Karshya Utpati. Its management is done by Santarpana – Brumhana.

Conclusion

Malnutrition is described in modern medical sciences but is similar to nutritional disorder in Ayurveda like Karshya, Phakka, Parigarbhika and Balshosha. A systemic study of these conditions provide insight into hazards of nutritional deficiency and represents different aspects of nutritional deficiency and proper understanding of pathogenesis of condition provide valuable key for the effective management.

References


