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MODERN AND AYURVEDIC VIEW OF MALNUTRITION IN CHILDREN.

NIRAJ SRIVASTAVA*

Declaration

The Declaration of the author for publication of Research Paper in The Indian Journal of Research Anvikshiki ISSN 0973-9777 Bi-monthly International Journal of all Research: I, *Niraj Srivastava* the author of the research paper entitled MODERN AND AYURVEDIC VIEW OF MALNUTRITION IN CHILDREN. declare that , I take the responsibility of the content and material of my paper as I myself have written it and also have read the manuscript of my paper carefully. Also, I hereby give my consent to publish my paper in Anvikshiki journal , This research paper is my original work and no part of it or it's similar version is published or has been sent for publication anywhere else. I authorise the Editorial Board of the Journal to modify and edit the manuscript. I also give my consent to the Editor of Anvikshiki Journal to own the copyright of my research paper.

Abstract

In the global campaign of health for all, promotion of proper nutrition was one of the eight element of primary health care. Lower socioeconomic 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, Bala shosha etc in different samhitas. This paper highlights modern and Ayurvedic approach of malnutrition.

Introduction

Malnutrition is the principal cause of child deaths. Half of all child deaths in India could be prevented if this one issue is tackled. “*Children are our future, and their mothers are its guardians* ¹. Almost 11 million children will die before they reach the age of five; four million of them in the first month of life. In this country, almost one out of every 2 children goes to bed on an empty stomach². Growing children are most vulnerable to its consequences. Their nutritional status is a sensitive indicator of community health and nutrition³. It is estimated that sub-optimal breastfeeding, especially non-exclusive breastfeeding in the first 6 months of life, results in 1.4 million deaths and 10% of the disease burden in children younger than 5 years ⁴. Further,

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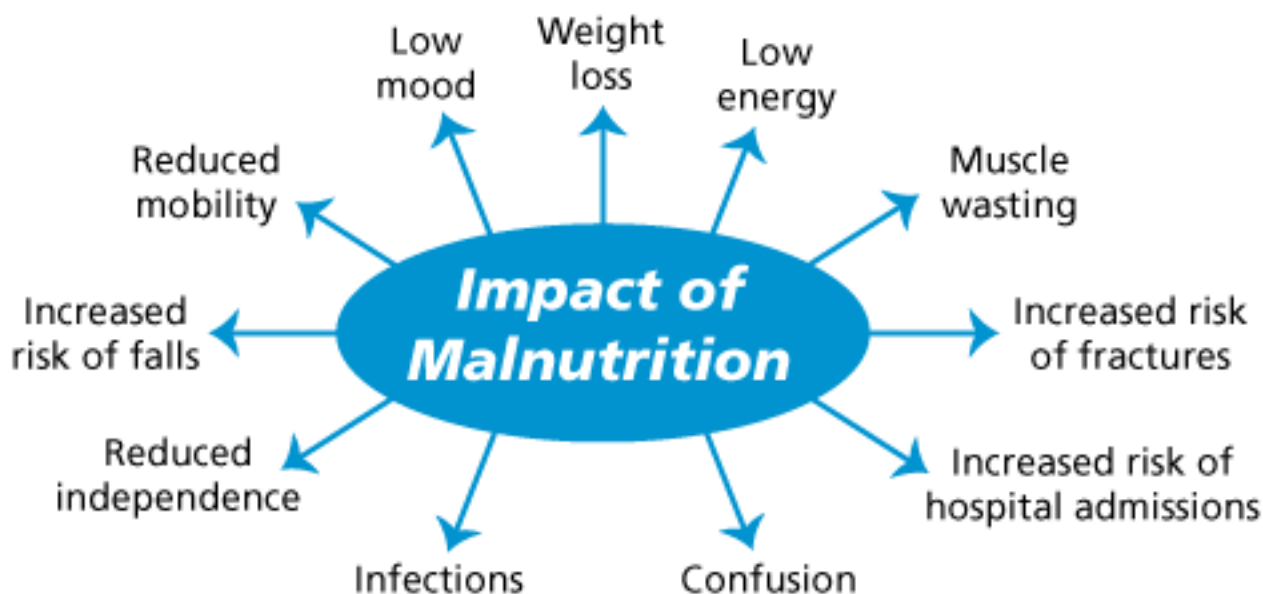
If complementary foods are not introduced at 6 months of age, or if they are given inappropriately, an infant's growth may falter⁵. Realizing the importance of children, World Health Organization (WHO) has declared the themes relating to children in the following years;

- ◆ 1951- Health for your child and world's children.
- ◆ 1979- A Healthy child a sure future.
- ◆ 1984- Children's health tomorrow's wealth.
- ◆ 2005- Make every mother and child count.

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 are viewed under Apatarpanajanyavyadhis 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 is essential for management of malnutrition in children.

Etiology & Impact of Malnutrition⁶

In Ayurveda it is mentioned that ruksha annapana (food which causes dryness), excessive intake of Kashaya (Astringent), Katu (spicy) and Tikta (Bitter) Rasa, alpa bhojana (inadequate food), pramitashana (intake of nutritionally deficient food), anashana (absolute no food intake), langhana (Fasting), ativyayam (excessive exercise), malamutradi nigraha (Suppression of natural urges), vatasevana (excessive exposure to wind), atapa sevana (Excessive exposure to sunlight), atibhagamana, ati chinta (worry), ati krodha (anger), and atibhaya (fear) can be causative factors for malnutrition^{7,8,9}.



(From <http://malnourishedmillions.blogspot.com>)

Description of Malnutrition in Modern sciences

Malnutrition is a pathological state resulting from a relative or absolute deficiency or excess of one or more essential nutrients¹⁰. Two clinical forms of protein energy malnutrition: Kwashiorkor and Marasmus. Prevalence

of clinical protein energy malnutrition (PEM) in the form of Marasmus is more than Kwashiorkor¹¹. While emaciation and vit-A deficiency in the form of Bitots spots and Vitamin B complex deficiency in the form of angular stomatitis and cheilosis seen in few children¹². Many children is found to be suffering from upper respiratory tract infection and a large number of children with diarrhea¹³. Table 1 show difference between Marasmus and Kwashikorkor and Table-2 show indicators of malnutritions¹⁴.

TABLE 1

Marasmus	Kwashiorkor
Obvious muscle wasting	Hidden edema may mask weight loss
Severe loss of subcutaneous fat	Some loss of fat
Severe malnutrition	Edema over legs, arm and face
Mental changes present, quite apathetic	Irritable, apathetic and Moaning
No skin change	Skin change: Flaky paint dermatosis
Less hair changes	Hair changes: sparse, silky and easily pluckable
No organomegaly	Hepatology + low albumin
Good appetite	Poor appetite

TABLE 2 Indicators of Malnutritions

Indicators	Nutritional status
Stunting (Low height –for age)	Chronic undernutrition
Wasting (Low weight for height)	Acute undernutrition
Underweight (Low weight for –age)	Acute and chronic undernutrition

Description of Malnutrition in Ayurveda⁶

In different samhita of Ayurveda these 4 diseases described that is near to malnutrition as mention in modern medicine

- Balshosha*: The causes of Balshosha are Shlaishmika anna sevana (Excessive energy dense food), Shitambu (cold liquid items) and diva swapna (excessive day sleep), these factor can create impairment of Agni. Clinical features of Balshosha is Arochaka (reduced digestive capacity), Pratishtyaya (Running nose), Jwara (fever) and Kasa (Cough); and at last baby may lead to Shosha (Emaciation)¹⁵.
- Phakka roga*: In Phakka roga, Ksheeraj phakka, Garbhaj phakka and vyadhi phakka are described. In Ksheeraj phakka intake of Shlaishmika dughdha Vyadhija Phakka is malnutrition condition resultant of any diseases as Graha roga etc, and Garbhaj phakka is due feeding of baby by pregnant lady. Clinical features of Phakka roga is 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 walk¹⁶.
- Karshya*: Karshya is under nutrition condition due to reduce food intake of baby resulting from less intake, if mother use vata vardhak ahar-vihar and baby take vata durshit stanya^{17,18}. Ultimately baby become malnourished.
- Parigarbhika*: If any baby feed breast milk of pregnant women then parigarbhika roga can occur and that milk have poor nutrients. Clinical feature of Parigarbhika roga is cough, impaired digestive capacity, vomiting, fever and anorexia¹⁹.

Recommendation for prevention of Malnutrition¹⁴

- Mothers should be advised to initiate breast feeding within one hour of delivery.
- Importance of exclusive breast feeding for the first 6 months of baby's life and proper weaning there after should be properly explained to mother.

3. Nutritional education has to be imparted to the people regarding consumption of cost-effective nutritious diet.
4. Special efforts have to be made to improve acceptance of family planning methods for limiting the family and to give adequate spacing between children.
5. Environmental sanitation has to be promoted in reducing infection and breaking the vicious cycle of infection leading to under nutrition.
6. Socio-economic development among the rural masses needs to be ensured which is the important factor to tackle malnutrition, mainly undernutrition.
7. Government should allot more money in health sector for integrated health packages and should ensure proper functioning of health programs.

Current Guidelines for prevention of Malnutrition

Care of nutritional needs is required at three stages; Nutrition during pregnancy, nutrition in infancy and nutrition in childhood. Fetal nutrition is totally dependent on maternal nutrition. In fact, intra uterine growth retardation (IUGR) may be due to maternal deprivation and or diseases in pregnancy. Infant nutrition should be through exclusive breast feeding up to 6 months, to meet the nutritional demands and to prevent morbidity. Following period is complemented with other foods along with breast feeding to meet the growing needs of the infant. Diet in children needs equal emphasis on both quality and quantity. Toddler needs more than half the portion of food that mother eats. The diet of pre-school children needs special attention to vitamins and minerals varieties; while school going children need 3/4th of food that father eats. Children should not miss meals, especially breakfast²⁰.

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