

Review Article**Diet in Elderly: An Ayurvedic Perspective**Nilanjan Datta¹, Kanchan Chowdhury^{2*}, Badal Jana³¹M.D. Scholor, Department of Roga Nidan, Institute of Post Graduate Ayurvedic Education & Reasearch, Govt. of West Bengal, Kolkata-700 009, West Bengal, India²SSR, Department of Swasthavritt and Yoga, Dhanwantari Bhawan, IMS, BHU, Varanasi-221005, UP, India³Professor, Department of Roga Nidan, Institute of Post Graduate Ayurvedic Education & Reasearch, Govt. of West Bengal, West Benal, Kolkata-700 009, India***Corresponding author**

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Abstract: History of dietetics is very old, which is essential factor for the maintenance of life. Goal of nutritional care in elderly is to achieve a healthy, purposeful and independent living as well as quality of life through “Sattwik Ahara”. Eat to lead a healthy ling life through Bhojan (wholesome), Mitabhojan (balanced), & Kalabhojan (in proper time) is the philosophy of Ayurvedic nutrition. Ayurveda gives maximum emphasis to digestion than nutrition that is why a very deep and elaborate description of Agni, Matra and Ama is found in ayurvedic texts. Diet for the elderly should be soft, well cooked and liberal amount of fresh fruits, milk and milk products should be there. Six major system are identifiably affected in ageing viz. Cardiovascular, Renal, Brain and Neurological, Digestive, Psychological & immunological. So, special attention towards diet should be given to maintain sound Health and mind.**Keywords:** Ayurveda, Sattwik Ahara, Mitabhojan, Kalabhojan, Agni, Ama.

INTRODUCTION

Diet and nutritional concept in Ayurveda is very vast and scientific. Ayurveda puts a huge emphasis on diet and dietary habit known as ‘Pathya’. Eat to live a healthy and disease free life is the philosophy of Ayurvedic nutrition. Trio of each ayurvedic prescriptions comprises of Aushadha (medicaments), Anna (Do’s and don’t of diet) and Vihara (Lifestyle). Due to the changes in different body systems, mind, metabolism, decreased motility, poor income, diets of elderly need some modification. It has been mentioned in ayurveda, that if a person is suffering from any disease and is following strictly the pathya and apathya, he may not require medicine. Medicine without diet may be fruitless. So diet after sixty years should be nutritionally adequate and well balanced. Practice of dietary restrictions and yoga therapy throughout life is the key of longevity and quality of life for the ancient rishis. In simpler words, *Sattwik ahara* is the key diet for the elderly.

CONCEPT OF DIET IN AYURVEDA

Older people are particularly vulnerable to malnutrition and many problems that affect older patients can be addressed by dietary modifications. In spite of this, evidence based guidelines for individualized dietary modifications in elderly are lacking and older people tend to be poorly compliant

with dietary recommendations. Ayurveda deals with the diet very broadly. All classical texts of ayurveda such as Charak samhita, Susruta samhita, Astanga samgraha, Astanga hriday, Bhaisajyaratnawali deals exclusive chapters on nourishment and nutrition values of food, balanced diet, daily diet, seasonal diet, disease wise diet, diet during pregnancy, lactation and menstruation, grouping of diet and drinks, incompatible dietary rules and a list of most unwholesome and wholesome foods. Susruta clearly mentioned that diet is the primary source of Vala (strength), Varna (complexion), and Ojas (immunity). The concept of Charak is noteworthy here. The life of living being is food and all the people of the world seek food. Whatever is beneficial for happiness, whatever pertains to the Vedic sacrifices and whatever is established to spiritual salvations said to be established in food. In most of the golden classics of Ayurveda, emphasis is made on the diet that will not produce *Ama* and protect *Jatharagni* and promote *Dhatwagni* is considered an ideal diet.

THE ‘SADA RASA’ CONCEPT IN DIET

The *sada rasa* (SIX TASTE)* concept of Ayurveda is very significant. All the Vrihatrayis has mentioned this concept vividly. Ahara must contain these *sada rasas* in single and combined form to add to the nutritive value & taste of food. Also the have few

specific properties that is very significant in context of selection of a particular diet for old. All are described in a simplified manner below-

1. Madhura Rasa: Sukravivardhan, Indriya prasadan, daha-murcha prashaman, ksata-kshina sandhana kara.
2. Amla Rasa: Vata anuloman, Hriday Tarpan.
3. Lavan Rasa: Kaphang Vishyayanti, Sarvarasa prtyanikbhuta, Pachan, kledan.
4. Katu: vaktrang sodhayati, kandu vinashayati, Shonota sanghat vinnati, Chakshu virechayati.
5. Tikta: Vishaghna, Stanyasodhan.
6. Kshayay: Sanshaman, sangrahi, Sandhankara, Kledassypokta [1].

CONCEPT OF AGNI IN RELATION TO DIET

Diet and nutrition concepts will be incomplete without the concept of Agni. The agents present in the gastrointestinal tract or tissue level which converts the heterogeneous substance to homogenous one is known as agni. It is of three types- Pachakgni, Bhutagni, dhatwagni. Pachakgni plays a central role in digestion of food and resides in jathara (whole of mid gut) hence it is also called Jatharagni. In addition to its main function of digestion, with the help of samana vayu, it retains the food in intestine for sufficient period for digestion and assimilation. It also absorbs the end products of digestion (Rasa) into the body and expels the waste material to the large intestine. The pachakgni may be co-related with the various digestive juices and local hormones of the G.I. tract. Ayurvedic system gives maximum emphasis to digestion. On the other hand Western medicine gives importance to nutrition. So, agni is one word which is nothing but transforming agent present in the G. I. Tract [2].

CONCEPT OF BALANCED DIET IN ELDERLY

Ayurvedic balanced diet is one that not only nourishes the body, but also restores balance of tridosha, which is very much essential for maintaining health and mental upliftment. The constituents of a well balanced diet includes good and fine Shastik and Shali rice (carbohydrate), Mudga (green gram, plant protein), saindhava (rock salt), Amlaki (vitamin-C), Yava (Barley), Milk (contains protein, fat, carbohydrate, vitamin etc.), Sarpi (ghee, fat), Jangala Mangsha (flesh of animals living in dry forest, animal protein), Honey and jala (sterile water).

DIET FOR SIX MAJOR SYSTEMS FOR ELDERLY IN AYURVEDA

Differentiating the consequences of normal ageing from diseases and disuse is the fundamentals of practice of elderly medicine. Cardiovascular health, Brain and Mind function, Musculo-skeletal health, Endocrine function, Immune function, homoeostasis particularly glucose homoeostasis are identifiably affected in old age. So, for health benefits proper

attention should be given relating to diet on those six areas.

DIET FOR CARDIOVASCULAR SYSTEM

After the age of sixty years, people are at greater risk of cardiovascular diseases such as Hypertension, atherosclerosis of coronary and carotid arterperies and vascular damages. 40% of the deaths over 65years are caused by coronary heart diseases or stroke [3]. Restrictions of salt intake, overly salted food, diet rich in cholesterol, saturated and trans fatty acids is an important component of dietary advice in the elderly as per Western Medicine. Ayurveda explains that four drug or dietary principles can be applied for protection of cardiovascular system in advance age such as a) Hridaya, b) Ojo, c) Srotoshodhana, d) Manoprasadana. Milk and milk products, Tulsi, Amalaki fruits, Pomegranate, Apple, seasonal vegetables are good for heart. Fruits that are most beneficial for keeping the heart healthy are oranges, Papaya, grapefruits. Garlic is beneficial for blood pressure. *Dhamani pratichaya* [4] signifies the atherosclerotic changes of vessels, which occurs due to buildingup of lipid particularly cholesterol and cholesterol components in the walls of the vessels. These lipid materials are analogous in nature with *kapha*, which is increased due to excessive intake of *kaphavridhikara ahara* (various types of cheese, sweets, butter, curds, etc.) and *Vihara (divaswapna etc.)* for long time. In this study, it was found that maximum patients were having fatty and oily foods since five or more years [5].

DIET FOR BRAIN AND MIND FUNCTION

Diet, lifestyle choices, and physical activities play an important role in the etiopathogenesis of neurodegenerative diseases, in other words the brain and mind function. The brain is among the most metabolically active organs in the body and generates large quantities of free radicals. Brain needs four basic nourishments i.e. oxygen, glucose, fat and protein. Medhya rasayan [6], vayasthapan, valya, jeevaniya aahara or aushadha is beneficial for brain and mind. Fresh fruits and vegetables, black peeper enhance oxygenation of brain, whole grain is the source of glucose. Fruits like nuts especially walnuts and pure cow's ghee in balanced amount, turmeric and amlaki is good for brain. Use of protein food such as milk, yogurt, soyabean stimulate brain activity. Cognitive impairment with dementia is common in elderly persons causes significant impairment in capacity to perform daily activity, so intellectual stimulation activity like reading, writing, crosswords, puzzles, group discussions and music are also helpful along with diet. Ayurveda mentioned Yoga meditation which are much effective for mental performance and promote intelligence.

DIET FOR MUSCULOSKELETAL HEALTH

According to Ayurveda, Vataparkopa is the main cause of all problems related to musculoskeletal problems. So, vatanashaka ahara (e.g. snigdha bhojan) and vihara is the mainstay [7]. In old age, three significant changes are observed. They are- sarcopenia (reduction of muscle mass causes debility), Osteoporosis and arthritis (specially degenerative) along with soft tissue rheumatism. So, daily physical activity associated with grains, vegetables, fruits, oils, dairy products, meat, fish and beans should be consumed regularly to strengthen the musculoskeletal health.

DIET FOR ENDOCRINOLOGICAL PROBLEMS IN OLD AGE

Endocrine glands are related to metabolism, immune function, bone density, energy level, sexual desire and brain function. For healthy functioning of endocrines ayurvedic texts mentioned vrishyas and vajikaran diets with adjuvants. Sastik variety of rice, milk and milk products, kharjur, pure cows ghee, mangsha ras, rohita and puti fishes, dadimba and amlaki. Garlic and onion will add in keeping a balanced endocrine system.

DIET FOR IMMUNE FUNCTIONS IN AYURVEDA

The functional capacity of the immune system decline with involution of thymus gland and deterioration of Stem cells leading to increase in the incidence of infection, cancer and other immune mediated diseases in the elderly. Immunology in Ayurveda is explained in terms of *bala*, *ojus*, *vyadhikshamattwa* etc. These are specific diets and medicinal plants that act immune function include whole grains, milk and milk products, meat, soup, fresh seasonal fruits, some kitchen spices like garlic, ginger, cinnamom, turmeric etc.

DIETS FOR DIABETES IN AYURVEDA

Ayurveda prescribes that patients with Madhumeha reduce or avoid sweet and heavy foods. Diabetic patients should favor bitter, pungent and astringent tastes (in vipaka) in addition to the diet of specific fruits, vegetables and spices. Rasayana vis-à-vis antioxidants or free radical scavenger supplements in the elderly may enhance defense against free radical damage in Diabetic patients. Tikta shaka, Sarshapa (mustard), Methi, Karabellak patola, Sobhanjana, Karkotaka, Udumbara, Rasona (Garlic), Kadali, Jambu (black berry), Talaphala, Kharjura, Tinduka. Kamala, Utpala are good. In mangsha ras, Harina (deer flesh), Shashaka (rabbit), Birds like Kapota, Titira, lavaka provide good results. Liquids like Old sura (old wine). Oils- Sarshapa (mustard), Danti, Ingudi, best for vatic & kaphaj prameha. Ghrita (ghee) may be used in Pittaja Prameha ghritta & taila in sannipatika Prameha [8].

INTEGRATED APPROACH TO THE DIET IN ELDERLY [9]

- Encourage consumption of fruits and vegetables as they are rich in micronutrients, minerals and fibres. Whole grains are good as they reduce cholesterol, regulate bowel movement. It should be kept in mind that some of these fruits are costly & thus less accessible to low income groups.
- Good hydration is essential. Fluid intake is at least 1L/day [10]
- Encourage the use of fat free and low fat dairy product, legumes, poultry and lean meats. Encourage consumption of fish at least once a week.
- Match intake of energy (calories) to overall energy needs in order to maintain a BMI (20-27)
- Limit consumption of food with high calorie density, high sugar & high salt intake.
- Limit intake of food with high content of saturated fatty acids & cholesterol.
- Limit alcohol consumption (one drink per day or less).
- Vitamin D fortified foods should be introduced in diet
- Food should rich in vitamins [11]
- For constipation: increase dietary fibre and fluid intake.

SUMMARY

Adequate nutrition and as well as balanced diet is very vital in old age to prevent and control the common hazards after the age of sixty years, because after that, many metabolic and physiological changes impact on nutritional needs of the individual. Factors contributing to inadequate nutrition in older adults include – a) Physiologic (Impaired strength, sensory input, malabsorption, chronic illnesses and effect of drugs), b) Socio-economic (fixed income, social isolation, inadequate cooking facilities and poor knowledge or nutrition). C) Psychological (Depression, anxiety, fear, dementia). Special consideration should be given to appetite, cardiac status, renal status, and use of medications. Small quantity of food in fixed time interval, varieties of foods should be chosen. A Sattvik food comprises of fresh fruits, vegetables, milk products, nuts, minimum fats and spices should be recommended after the age of 60 years. Older people are at greater risk of dehydration because of impaired thirst sensation, less effective hormonal responses to hypertonicity, co-existing physical or cognitive impairments and voluntary fluid restrictions in an attempt to control urinary incontinence. So, elderly people should be encouraged to drink plenty of water to maintain adequate hydration, normal fecal and urinary output. These guidelines of diet after the age of sixty should be maintained properly in order to live a healthy and peaceful life.

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