EC Nutrition Editor's Column - 2017

Geriatric Nutrition

B Kundhala Ravi
Sri Ramachandra University
India

COLUMN ARTICLE

Geriatric nutrition is of great concern as increase in life span is observed across the world and women out live men in many regions. Modern facility in health care and improved sanitary condition along with higher standard of living has witnessed prolonged life span. Changes occur with aging both in terms of physical and psychological aspects.

A decline in BMR is noticed with aging. A decrease in lean body mass termed sarcopenia leads to muscle wasting and eventually lands up in fatigue. Most of the older people tend to be under weight and malnourished, while few might be overweight or obese. Thus, a dual burden is encountered in this age group. Malnutrition with excess fat stores carries the risk of degenerative diseases, thereby increases the risk of morbidity and mortality. On the other hand, malnutrition associated problems are seen in elderly who are underweight. Screening this group of population is necessary as they are at risk either way.

Factors affecting the food intake of the elders are numerous. The aging population is at risk of malnutrition for various reasons.

The primary reasons are:

- Lack of nutritional knowledge
- Financial constraints
- Decreasing physiological and psychological functions
- Social isolation
- Treatment of multiple concomitant disorder and diseases

Secondary reasons are:

- Feeding impairments
- Anorexia and mal absorption
- Increased demand due to medical problems
- Drug nutrient interaction
- Substance abuse (alcoholic)

Common nutritionally at risk issues

Dysphagia, Pressure ulcers, Alzheimer's disease, Parkinson, Failure to Thrive of the elderly, Osteoporosis, Type 1 Diabetes and Hypertension.

Decreasing physiological and psychological functions are the most important concern directly responsible for decreased food intake.

Physiological factors

Decrease in Human Growth Hormone in aging results in gradual loss of bones, muscle mass and strength. Cell metabolism decreases with age.

Reduced physical activity: Lack of exercise and reduced BMR are the major problems faced by the aged, which influences the food intake. The energy requirement also decreases with advancement in age; hence, food intake reduces drastically in some individuals.

Gastro-intestinal disorders: There are changes observed in the GI tract during aging. Aging has a great influence on the oral cavity. Dentures are a problem; tooth decay, cav-

Citation: B Kundhala Ravi. "Geriatric Nutrition". EC Nutrition ECO.01 (2017): 33-34.

ities and tooth loss are common features experienced by this age group. Food intake is affected due to pain and sensitivity where hot or cold foods are likely to be disliked and mechanically hard food cannot be tolerated. Chewing and swallowing disorders are encountered.

The intestinal tract experiences a reduction in secretion of hormones that aids in digestion, which ultimately leads to indigestion. Tolerances to normal food in terms of consistency and texture vary leading to reduction in choice of food. Constipation or diarrhea is commonly seen in the elders due to lack of fiber and inadequate fluid intake. Mal absorption syndrome is due to deficiency of certain secretions of the GI tract. Acute or chronic gastritis, acid peptic disorders, duodenal ulcers and cancer of GI tract limits the food intake. Diseases of the large intestine especially that of the colon is reported to be experienced by this group.

Co-morbid conditions: Older people are likely to acquire one or more of the degenerative diseases. Aging in one of the risk factors for diabetes, hypertension, renal, hepatic, neurological and cardiac problems. Oncology problems are common in this age group. Dietary restrictions due to nutritional management of these conditions limit the choices of food and makes food less appealing.

Poly pharmacy: Because of co-morbid conditions, these people are placed on multi drugs which influences the taste and appetite and thereby the food intake. Drug nutrient interaction affects the absorption and utilization of these vital nutrients.

Immune system: Immunity also declines with age and this age group is more prone to acquire communicable diseases more frequently. Recurrent infection leads to malnutrition.

Psychological factors

Poor quality of life with dependency on others even for routine chores, loneness, attitudes and behavior of the kith and kin, sense of insecurity, feeling of helplessness and guilty of not being able to contribute to the family or society may lead to depression. Depression and mood swings are great contributors to influence food intake.

In addition to the psychological factors, financial burdens and lack of socialization leads to a decrease in food intake.

To summarize mal nutrition in the aged population are due to

a) Inadequate dietary intake
b) Appetite loss (anorexia)
c) Disuse or muscle atrophy (sarcopenia)
d) Inflammatory effect of disease (cachexia)
e) Social (poverty, isolation)
f) Psychological (depression, dementia)
g) Medical (dysphagia)
h) Pharmacological issues

Impact of aging on the food intake in the elderly needs to be addressed in a holistic way to prevent or correct malnutrition. Nutrition education and counseling needs to tailor made to cater individual conditions.

Nutritional plan

Energy requirement is based on the nutritional status and presence of disease. Moderate energy of 25 kcal/kg body weight is prescribed in the absence of catabolic state. Protein 0.8 to 1g/kg body weight is required. Fluid recommendation depends on urine output. 30 ml/kg/day or 1ml for every calorie is usually sufficient.

Planning diet for the elders need great care as too much or too little of anything can cause problems. Menu plan must consider likes and dislikes, religious concerns, medical issues and financial restrains. Small frequent meals, which are non-irritating, easy to digest food items with in between nutritious snacks and appropriate supplementation are to be recommended. Meal times must be pleasant and eating in groups must be encouraged.