Malnutrition and Obesity in Third Age

Abstract

Introduction: Normal aging is considered the harmonious senile development and decay of the tissues and the body organs. During the third age are develop significant nutrition problems.

Purpose: The purpose of this retrospective study is to highlight the effects of obesity and malnutrition in the health of elderly.

Material and review methods: The study material was based on recent articles, at least, the latest five-year related articles that were extracted mainly from the international database Medline and Hellenic Academic Libraries (HEAL-Link). Exclusion criterion of articles was the language, other than the Greek and English.

Results: Obesity and malnutrition are two major problems that afflict the elderly and according to the studies of obesity are increasing in ages 60-69 and 70-79 and only the people over 85 maintain a relatively constant weight. Furthermore, based on studies, malnutrition reaches almost 23% of the population with an average age of 80 years. The highest rate of malnutrition is found in institutions or nursing homes (50.5%) and less in the community (5.8%). Nearly one third of elderly patients admitted in to the hospital for any reason have malnutrition problems.

Conclusion: Proper nutrition is a basic concern for third age citizens because over the years some nutritional peculiarities may appear as obesity and malnutrition that can cause significant problems in the elderly health.

Keywords: Obesity; Malnutrition; Eating disorders; Third age

Introduction

Normal aging is considered the harmonious senile development and decay of the tissues and the body organs, while premature aging is characterized by asynchronous, disharmonious and premature senile decay of various organs that appears before the age of sixty, which is due to specific nosological causes. The decrease of the cognitive function seems to be more a cognition function than an aging effect. The recommendations for the nutritional requirements of older people are determined from the average percentage in which the activities are limited. Specifically, is taken into consideration the reduction of the caloric loss in combination with the increased rate of physical disability that accompanies the age [1].

The average daily caloric intake recommended is 2000-2800 calories for men 51-75 years old and 1400-2000 for women of the same age. The calorie needs approximately diminishes parallel with age, but the needs of many nutrients such as protein, vitamins and minerals, are not reduced by the same percentage [2].

Obesity and malnutrition are two major problems that afflict the elderly and according to the studies of obesity are increasing in ages 60-69 and 70-79 and only the people over 85 maintain a relatively constant weight. Furthermore, based on studies, malnutrition reaches almost 23% of the population with an average age of 80 years. The highest rate of malnutrition is found in institutions or nursing homes (50.5%) and less in the community (5.8%). Nearly one third of elderly patients admitted in to the hospital for any reason have malnutrition problems [3].

Purpose

The purpose of this retrospective study is to highlight the two major nutritional problems that afflict the elderly: the obesity and the malnutrition. It presents the causes, the risk factors and the treatment of these two disorders of nutrition.
Methodology
The study material was based on recent articles, at least, the latest five-year related articles that were extracted mainly from the international database Medline and Hellenic Academic Libraries (HEAL-Link). The keywords that were used were: obesity, malnutrition, eating disorders and third age. Exclusion criterion of articles was the language, other than the Greek and English.

Obesity in Third Age
Many elderly people in most countries are overweight or obese. The frequency increases as more people reach the third age and are already overweight [4].

Obesity in third age includes many risk factors that may impede the movement of a person, his health and may cause his death. The science of medicine currently uses a special marker to estimate the weight of a person, body mass index (BMI), which is equal to the weight divided by the square of the body height. When BMI=18.5 to 24.9 the height is normal, when BMI=25-29, 9 then a person is overweight and when is over 30 then the person is obese. Depending on the findings of the medical examination the BMI is individualized, but this value applies to all ages [5].

The signs and the symptoms of obesity in third age are mainly evident; the body changes during aging in combination with increased amounts of fat are the key point of appearance of obesity. Obese elderly often has reduced breath [6].

Obesity in elderly causes or accelerates many health problems, such as cardio circulatory diseases, hypertension, diabetes, increased blood sugar and blood triglycerides. The weight may be increased or remain stagnant in adulthood, but over time the body composition changes, so it increases the percentage of fat tissue and the muscle mass is reduced, appearing so the body composition changes, so it increases the percentage of fat tissue and the muscle mass is reduced, appearing so the sarcopenic obesity [7]. These facts have also as a result the reduction of muscle strength which can lead to a restriction of the mobility and a reduced quality of life. And so obese elderly is actually physically weaker than their thin peers. Over 95% of people with sarcopenic obesity have mobility problems. One possible advantage is that obesity slows bone loss and due to the fat increase, reduces the risk of bone fracture from falls [8].

The treatment of obesity for the elderly should include dietary advice, physical activity, administration of vitamins such as D, calcium and drugs, if the doctor considers it necessary. However, it is not only important to reduce the body fat, but especially to maintain the strength and the muscle mass which might be achieved by regularly scheduled exercise [9].

Some advices for the treatment and prevention of obesity that can be followed by the elderly are the following [10]:

- Weight maintenance is the most effective treatment and prevention of obesity.
- A healthy lifestyle as regards the diet, physical activity, quitting smoking, and avoiding alcohol consumption in the elderly, should be a primary prevention measure.
- Exercise is the most successful treatment for the elderly, especially the aerobic exercise and the strengthening programs.
- The restraint of elderly at tasty and very fatty meals constitutes to end of the unhealthy foods consumption.

Malnutrition in Third Age
Malnutrition is a condition of nutrition in which the lack of proteins, energy and other nutrients causes unfavourable effects in the tissues, in the whole body, in the composition and in the functioning of the body [11]. Poor nutritional condition and malnutrition of the elderly population are important areas of concern and can be a dangerous problem for the elderly. Elderly are likely to experience malnutrition if they eat very little or nothing for more than five days, and this pattern is likely to continue [12].

There are many causes of malnutrition which may include [13]:

- Reduced food intake: Anorexia, sickness, food aversions, nausea or swallowing pain, depression, anxiety, drug side effects or drug addiction.
- Weakness in feeding: After stroke swallowing problems, Parkinson's disease or other neurological disorders. Also might be from arthritis, vomiting, painful conditions of the mouth, poor oral hygiene or dentition and postoperative limitations.
- Reduced sensory and cognitive ability: Change of taste, decreased perception of smell, decreased appetite and decreased vision, memory loss, dementia, transient vascular events and confusional states.
- Socio-economic causes. These are: Poverty, poor quality of food at home or at care homes, grief and limited access to food shops and cooking [14, 15].
- Reduced absorption: This may be due to medical and surgery problems that affect digestion and stomach, intestine, pancreas and liver.
- Losses: Vomiting, diarrhoea, loss from nasogastric tube and other drainage or exudates from skin burns.

The symptoms of malnutrition are evident in various parts and organs of the body, these are [16]:

- In the mouth: The mouth can display very clear signs of malnutrition at an elderly person. The taste is reduced; the mouth of an elderly person can become bright red and can display wounds. Signs from fungi may become apparent on the tongue or on the cheeks that can lead to localized pain in the attempt of the feeding process [17].
- In muscle: In a malnourished elderly person's the muscles relaxes. The activities such as walking are too difficult to achieve and the muscles and skin shows elasticity.
- On the eyes: The eyes might show inflammation, swelling of the cornea, blurred vision and if the situation deteriorates even reduced vision.
In cognitive functions: Malnutrition can affect the cognitive abilities of the elderly. Without a proper nourishment to maintain the body function even everyday tasks are reduced. The memory can decrease and the confusion to increase.

On skin: The skin of malnourished elderly can also present problems. Many obvious symptoms on the skin is yellowish color, blur and dryness.

It is easy to avoid malnutrition. The diet of the elderly is important, and it must consist of essential nutrients. Simple things like beans, almonds, walnuts, oranges, broccoli and others that can provide vitamins and minerals such as vitamin C, vitamin B, folic acid and zinc [18].

Nutrition plays a very important role in the elderly as well as it helps to prevent, by following some simple diet plans, serious problems associated with nutrition.

The treatment of malnutrition is designed depending on the cause and severity of the condition [19].

**Conclusion**

Proper nutrition is a basic concern for third age citizens first, because over the years some nutritional peculiarities may appear as obesity and malnutrition which must be resolved, and second, because nutrition plays a major role in the prevention and management of serious diseases such as obesity and malnutrition that occurs in elderly [20].
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