



Assesment of Nutritional Status in Home Care Patients



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Submission: June 16, 2018; **Published:** October 09, 2018

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Abstract

It is even more common in the older people taking home care compared to general population. In this study, it is aimed to examine nutritional status of elderly patients taking home-care unit and its relation with sociodemographic variables and laboratory parameters. Following the approval of the ethics committee to work, 144 home care patients who were served from the Health Sciences University Samsun Education and Research Hospital Home Care Unit between 01.04.2015-28.02.2015 date were included. For sociodemographic features health status and laboratory parameters, the nationally standardized patient files have been used. Mini Nutritional Assesment (MNA) test has been used for nutritional assessment and applied by the nurse or the doctor. Scores classified as normal nutritional state as risk for malnutrition between 17-23, and below 17 as malnutrition. The data were evaluated using the SPSS 20.00 package program. $p < 0.05$ was considered statistically significant.

The mean age of the patients was 72.4 ± 6.3 year. Of the patients, who participated in this study 61.2% ($n = 88$) female, 58.2% ($n=56$) male. 38% at risk for malnutrition (17-23.5), and 45.3% were malnourished (< 17). The mean age of the patients with malnourished was 70.3 ± 4.5 year. Patients who dependent to bed, having pressure sores, chronic diseases, have a higher risk of malnutrition than the others ($p < 0.05$). Total protein and albumin were significantly lower, and CRP were significantly higher among the participants who were malnourished ($p < 0.05$).

Malnutrition and risk of malnutrition are common among elderly patients taking home care unit. To assess the nutritional status of patients taking health care service at home and to intervene as it is needed will positively effect general health status, quality of life and complications of chronic diseases of these patients

Keywords: Malnutrition, Patients, Home care, Home care unit

Introduction

Malnutrition is a clinical condition that develops as a result of inadequate or excessive intake of carbohydrate, fat, protein, vitamins and minerals that organism needs [1]. The nutritional condition in old age is affected by changes occurring in the body such as; chronic diseases, drugs, changes in physical, psychological, social and economic status. Nutrition is adversely affected by aging; Food intake reduces, causing malnutrition [2,3]. 5-15% of healthy people, 40% of hospitalized people and 60% of those living in nursing home are at the risk of malnutrition or have malnourished [4]. According to the NRS-2002 results, 15% of the 29.139 patients are at the nutritional risk in Turkey [5].

The most common type of malnutrition seen in elderly people is inadequate nutrition due to energy-protein deficiency [6]. Malnutrition is often insidious and unrecognized [7]. Sometimes, inadequate diagnosis or treatment occurs; 75% of the elderly people losing weight were observed to have had no treatment. Malnutrition in the elderly is a common clinical case [8]. If it remains undiagnosed and untreated, it makes treatment of other existing clinical diseases complicated, and

on the other hand, it increases mortality and morbidity by causing new complications suffering the patient [9].

Inadequate nutrition is frequent in-home care patients [10]. Prevalence of nutritional deficiencies in home care patients varies between 17-65% [11]. Each nutrition-related factor, nutritional status, and food consumption play an important role in the life quality of the elderly [12]. In daily practice, it occurs with nonspecific symptoms such as loss of appetite, nausea, eating less, eating liquid food more than a solid one, and loss of body weight. In addition to this table, fat, muscle tissue loss, and edema can be observed in the progressive malnutrition table [13]. Our aim is to assess the nutritional status of patients registered to home care unit.

Materials and Methods

Our work was carried out with 156 registered patients in Health Sciences University Samsun Education and Research Hospital Home Care Unit between 01 and 31 April 2015. 12 people in the terminal period were not employed in the study. Socio-demographic characteristics and laboratory results

were taken from the standardized home care unit patient files. Nutritional assessment was done by MNA test. The MNA test consisted of a total of 18 questions; Of them, 15 was verbal inquiry and 3 was based on anthropometric measures and all nutritional scoring was evaluated on the scale of 30 points [3]. In the pre-questioning part consisting of the six questions. If the score reaches 12 out of 14 points, the rest of the test is not continued, and it is understood that the person has not malnutrition. If the score is 11 or below, the remaining 12 questions of the test are also continued to be questioned. In total, normal nutritional status is between 23.5 and 30 points, 17-23 points refer the risk of malnutrition and malnutrition case is below 17. With 15 verbal questions in the MNA, the patient's general nutritional assessment is done and dietary habits are questioned [3].

To obtain socio-demographic data, the standardized socio-demographic data form standardized by the Ministry of Health for home health services was used. The socio-demographic data form includes data such as age, gender, social insurance, dependence to bed, assistive device use, availability of nursing service. Laboratory data were obtained by scanning patient files.

Ondokuz Mayıs University Clinical Research Ethical Committee approval was granted for the study. The data were evaluated using the SPSS 20.00 package program. Statistical significance was accepted at $p < 0.05$. The distribution of the data was evaluated by the Anova, two independent sample-t tests. Kruskal Wallis and Pearson chi-square test for qualitative variables were used to determine if there was any difference between the groups.

Results

Of the 144 participants who participated in the study, 61.2% (n=88) of our patients were female. The mean age of the patients was 72.4 ± 6.3 (18-99). 54.4% of home care patients were dependent to bed. 39.8% of the patients had no pressure sores. The most common stage of pressure sores was the stage I-II. 45.7% of the patients had at least one chronic disease. 40.6% of the patients were married. Primary school graduating were most frequent education level (39.5%).

In malnourished individuals, total protein and albumin were significantly lower and CRP was higher ($p < 0.05$).

Discussion

In our study, the mean age of patients was 72.4 ± 6.3 years. In the study of Akan et al. [15] they found that the mean age of patients was 82.9 ± 6.8 years [15]. In our study, 45.7% of home care patients had at least one chronic disease. In the study of Balci et al. they found that 94.2% of the women and 53.1% of the males had at least one chronic disease [16]. In our study 54.4% of home care patients were dependent to bed. According

to Meijer et al they found that only 26.6% of home care patients were dependent to bed [17]. In our study, personal hygiene of 37.7% of home care patients was not favorable. According to Akdemir et al. they found that 94.7% of the patients had a hygiene problem [18]. The reason for this may be that the hygiene varies from one healthcare personnel to another. There must be objective criteria for hygiene.

In our study, malnutrition risk was found in 38% of the home care patients and malnourished was found in 45.3%. According to Guigoz, it was revealed that 9% of home care patients had malnutrition risk and 45% had malnourished [19]. In the study of Soini et al 48% of the patients are at the risk of malnutrition [20]. According to Kaiser et al the prevalence of malnourished was found to be 13.8% and the risk of malnutrition was found to be 53.4% [21]. In the study of Salva et al malnutrition risk was found in 47% of home care patients and malnourished in 6% [22].

According to Cevik et al. [23] they found that serum iron and albumin ratios were lower and CRP was higher in patients with malnourished. In our study, total protein and albumin were significantly lower and CRP levels were higher in those with malnourished [23]. In our study, total MNA score was found to be 22.4 ± 2.7 in home care patients. In the study of Bleda et al they found that the total MNA score in the geriatric patient group was 20.8 ± 5.4 [24]. The literature on how well home care patients who are detected to have malnourished by MNA test will benefit from appropriate treatment is not satisfactory.

Malnourished and the risk of malnutrition are high in those who apply for home care. Screening of patients with appropriate scales and further identification of patients with malnourished and improving nutritional status with appropriate interventions will positively affect general health conditions and quality of life and disease-related complications. In patients with malnutrition risk, taking preventive measures and close monitoring before further deterioration of nutritional status are some of the initiatives that can be effective in preventing the elder fragility and associated comorbidities, the decrease in the level quality of life and the increase in the dependence level.

Limitations

In order to obtain better results in this area, it is necessary to carry out large-scale studies.

Practice implications

The parameters that can be used to determine the nutritional status of the elders are the anthropometric measurements, physical examination, laboratory analyzes and evaluation of nutrition background. Nutritional status should be screened by family health centers, private polyclinics, home care units to be able to identify malnourished individuals when they are hospitalized.

Acknowledgment

The author thanks their nurse colleagues for their participation in this study.

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DOI: [10.19080/NFSIJ.2018.07.555719](https://doi.org/10.19080/NFSIJ.2018.07.555719)

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