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Complications and risk factors associated with vertebral and femoral fractures in postmenopausal women

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Objectives: The purpose of this study is to analyze risk factors affecting fractures of the femoral neck and vertebra in postmenopausal women.

Methods: The subjects were consisted of three groups (A: with fracture in femoral neck, B: with fracture in vertebra, and C: age-matched control without fracture) Bone mineral densities (BMDs) of lumbar spines and femoral necks were measured by the DXA. Several factors such as ages, anthropometric factors, menses-related factors, alcohol drinking, tobacco smoking, past history of bone fracture, biochemical test values, carotid artery intima-media thickness (IMT), and the presence or absence of complications and anamnesis were investigated.

Results: The numbers of each groups were 160, 122, and 111, and average ages were 74.8, 73.1, and 74.0 respectively. Past history of bone fractures was significantly prevalent in A and B groups. Tobacco smoking rate was higher in group B, and alcohol drinking rate was higher in group A. Serum albumin levels were lower and blood glucose levels were higher in group A and B. IMT was thicker in group B. Prevalence rate of diabetes mellitus was higher in group A, and prevalence rates of brain diseases were higher in group A and B. Blood pressure levels were higher in group A and B.

Conclusions: Past history of bone fractures, habit of tobacco smoking, alcohol drinking, low BMDs, malnutrition, complication of diabetes mellitus and brain diseases, and hypertension are risk factors of bone fractures in these postmenopausal women. Lumbar spines may be susceptible to metabolic effects of these diseases.

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Inadequate hydration and associated factors among Portuguese older adults – preliminary data from Nutrition UP 65

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Introduction: Data concerning the hydration status of Portuguese elderly are scarce. Therefore, we aimed to evaluate the hydration status and to identify factors associated with inadequate hydration among a sample of Portuguese older adults within the Nutrition UP 65 study.

Methods: A cluster sampling approach was used, representing Portuguese older adults according to age, sex, education level and regional area (NUTS II). A cross sectional study was conducted. From a sample size of 1500 participants, data from 949 elderly people are now available, 64.9% women, aged ≥65 years (30.1% aged ≥80 years). Inadequate hydration was defined as a 24 h urine osmolality >500 mOsm/kg H_2O. A logistic regression model was conducted to identify factors associated with inadequate hydration and Odds Ratios (OR) and 95% Confidence Intervals (95%CI) were calculated.

Results: Frequency of inadequate hydration was 32%. After adjusting for potential confounders, being male (OR = 2.06, 95%CI:1.54–2.77), living at home (OR = 3.37, 95%CI:1.39–8.18) and presenting 1–4 school years (OR = 1.60, 95%CI:1.02–2.50) or 5–11 school years (OR = 2.00, 95% CI:1.14–3.51) vs 0 years were factors associated with an inadequate hydration. Adhering to the Mediterranean diet (OR = 0.72, 95%CI:0.54 0.96), age ≥80 years (OR = 0.70, 95%CI:0.50–0.98) and presenting low physical activity level (OR = 0.61, 95%CI:0.41–0.93) decreased the odds of inadequate hydration.

Conclusions: Inadequate hydration is frequent among Portuguese older adults. Being male, living at home and having education are factors associated with an inadequate hydration whereas adhering to the Mediterranean diet pattern, age ≥80 years and low physical activity level protect from this condition.

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The effect of an oral nutritional supplement quality improvement program on 30-day readmissions and hospital length of stay among older malnourished patients

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Introduction: Malnutrition prevalence in older patients (≥65 years old) is high, and benefits of oral nutritional supplements (ONS) have been consistently shown. Limited research assessing the role of ONS on reducing readmissions and length of stay (LOS) among older patients exists. We assessed the impact of a comprehensive, ONS quality improvement program (QIP) in older patients on 30-day unplanned readmissions and LOS compared to historical controls.

Methods: Data from 1434 (55.4%) older patients (752/52.4% prospective QIP patients enrolled between October 2014 and April 2015, and 682/47.6% retrospective historical control patients admitted in the QIP hospitals between October 2013 and April 2014) were included in the analysis. In all four QIP hospitals, electronic medical record (EMR) was upgraded to include Malnutrition Screening Tool (MST) and condition-specific ONS was administered to patients with MST score ≥2.

Results: Pre-QIP historical control 30-day readmission rate and LOS were 20% and 6.5 days, respectively. Post-QIP readmission rate was 15.8%, showing an absolute rate reduction of 4.2%, as compared to pre-QIP (21% relative risk reduction, P < 0.01). Post-QIP hospital LOS was 5.4 days, showing an absolute reduction of 1.1 days, as compared to pre-QIP (17% relative risk reduction, P < 0.01).

Conclusion: Implementation of a comprehensive ONS QIP that emphasizes the need for malnutrition screening, nutrition education, and ONS leads to a significant reduction in 30-day unplanned readmissions and LOS for older hospitalized patients.

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District of Fatih-Geriatrics Study: the nutritional problems of the elderly people living in the community

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Objectives: The objective of this abstract is to investigate the nutritional problems of the elderly population in the community.

Methods: The elderly at the addresses that are determined by cluster sample among the elderly living in Istanbul province, Fatih district has been enrolled to the study. The interviewers of the study were 3rd & 4th-grade-students of Istanbul Medical Faculty. They were subjected to a standardized education regarding the execution of the study. The study involves participants who were between 65 and 101 years old. Their height, BMIs, the abdominal girth, the circumference of calves and upper mid-arms were measured. The malnutrition screening was done with MNA-SF. The abdominal girth of men being >= 102 cm, women being >= 88 cm was defined as metabolically risky.

Findings: 204 elder cases (94 men,110 women) participated in the study. The mean age was 75.4 ± 7.3. The prevalence of malnutrition was 41.7% and higher among women at a statistically significant level (50.9% versus 30.9%; p = 0.004). The prevalence of obesity and high abdominal girth circumference were respectively 42.9% and 74.9% and both conditions were more common in women. There was no significant difference between the weights and abdominal girth circumferences of different genders whereas the BMI, the circumference of the hip and calves were significantly higher among women and

the circumference of the upper mid-arm and MNA-SF-score were lower among women.

Results: Malnutrition and obesity are prevalent problems of the geriatric population in our society and occupy a major place in community health. Both nutritional problems are more common in elderly women. In addition malnutrition is more prevelant compared to other societies.

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Oropharyngeal dysphagia is a prevalent problem associated with mortality in hospitalized older adults

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Objectives: Oropharyngeal dysphagia (OD) is a common but under-diagnosed syndrome among older adults. Aim: The aim of this study was to assess the prevalence of oropharyngeal dysphagia in hospitalized older adults by using ten-item Eating Assessment Tool (EAT-10) and the relationship between mortality and OD.

Methods: Patients aged over 65 years who applied to an internal medicine inpatient clinic within Marmara University hospital in Turkey enrolled in the study. The number of drugs, the number of chronic diseases, routes of feeding (oral, parenteral, or both), length of hospital stay, albumin level on admission day,and mortality status of the patients were recorded by a physician. The EAT-10 questionnaire was administered to all patients for OD.

Results: One hundred thirty-six patients (54.4% female) were enrolled in the study. Their mean age was 74.6 ± 6.6 years. The prevalence of oropharyngeal dysphagia in hospitalized older adults was 23%. The mortality rates were significantly higher in the dysphagic subjects as compared to the non-dysphagic ones (25.8% vs. 10.5%; p = 0.041). The number of patients with malignancy was significantly higher in the dysphagic group as compared to the non-OD subjects (41.9% vs. 20%; p = 0.018).

Conclusion: OD is a geriatric syndrome and should be screened and treated in all geriatric patients in hospitals. It will improve patient outcomes and quality of life.

Keywords: Keywords: hospitalization; older patients; oropharyngeal dysphagia; screening; mortality.

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Targeting the underlying causes of undernutrition. Cost-effectiveness of a multifactorial personalized intervention in community-dwelling older adults: a randomized controlled trial

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Introduction: Undernutrition in old age is associated with increased morbidity, mortality and healthcare costs. This study aimed to evaluate the cost-effectiveness of a multifactorial personalized intervention focused on eliminating or managing the underlying causes of under-nutrition to prevent and reduce undernutrition in comparison with usual care.

Methods: A randomized controlled trial was performed among 155 community-dwelling older adults receiving home care with or at risk of undernutrition. The intervention included a personalized action plan and six months support. The control group received usual care. Body weight, and secondary outcomes were measured in both groups at baseline and 6 months follow-up. Multiple imputation, linear regression and Generalized Estimated Equations (GEE) analyses were used to analyze intervention effects.

Results: This intervention showed no statistically significant effects on body weight, mid-upper arm circumference, grip strength, gait speed and Short Form Survey 12 (SF12) physical component as compared to usual care, but there was an effect on the SF12 mental component (0–100) (β = 8.940, p = 0.001). Borderline significant intervention effects were found for physical function measures, Short Physical Performance Battery (SPPB) (4–12) (β0.56, p = 0.08) and Activities of Daily Living (ADL) Barthel-index (0–20) (β = 0.69, p = 0.09). Societal costs in the intervention group were statistically non-significantly lower than in the control group (mean difference −274; 95% CI −1111;782).

Key conclusions: This multifactorial personalized intervention showed a statistically non-significant effect and was not cost-effective on body-weight compared to usual care. We observed consistently beneficial treatment effects in the intervention group on all outcomes measures.

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Factors associated with diet and physical inactivity in obese elderly

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Introduction: Some factors are related to obesity in the elderly such as physical inactivity and poor diet. This study aimed to identify factors associated with eating habits and sedentary residents obese elderly Brasilia, Brazil.

Method: Cross-sectional study of 206 elderly evaluated initially with the household survey and later at the Health Center by anthropometric measures and electrical impedance to obesity classification. Descriptive analysis was performed using SPSS 20.0.

Results: sex, education and marital status were significantly (p < 0.001) associated with diet and consumption of fruits and vegetables, and mostly performed by female elderly, with more than 8 years of schooling, divorced and single. Regarding physical activity was observed that 93.2% of the elderly were sedentary, and prevalence ratios were significantly higher for elderly men, with an average income of 1–2 minimum wages and smoking habits.

Conclusion: The results can directly influence the direction and implementation of public policies in order to improve the quality of life, eating habits and physical activity of the elderly population.

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Construct validity of the diagnostic criteria for malnutrition from the ESPEN Consensus Statement in older adults

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Introduction: Recently, the ESPEN Consensus Statement launched consensus criteria for diagnosis of malnutrition. These are for older adults: (1) Body mass index (BMI) < 18.5 kg/m^2; OR (2) Unintentional weight loss AND (BMI < 22 kg/m^2 OR Fat free mass index (FFMI) <15 kg/m^2 (women) and <17 kg/m^2 (men)). This study examined: (1) the construct validity of these criteria; (2) the need for including BMI and FFMI in the second criterion.

Methods: Data were used on 2392 participants aged 76.6 Years (SD 2.9) of the fourth wave of the Health, Aging, and Body Composition Study. Construct validity was examined through associations of malnutrition (yes/no) with 3-year incidence of disability (needing equipment, having severe mobility difficulty or having any ADL difficulty) and 3-year mortality in those with a BMI <= 28 kg/m^2 (N = 1415). This was done because above a BMI of 28 kg/m^2 associations may be related to overweight.

Results: Prevalence of malnutrition based on ESPEN criteria was 5.8% (N = 2392) (9.8% in N = 1415). Malnutrition based on ESPEN criteria was associated with incidence of disability (HR = 1.90 (95% CI 1.28–2.81), AUC = 0.53 (0.49–0.58)) and 3-year mortality (HR = 2.76 (2.07–5.40), AUC = 0.57 (0.51–0.62)). Leaving out FFMI and BMI from the