

Mediterranean Diet, Duration of Admission and Mortality in Elderly, Hospitalized Patients: A Cross-Sectional Study

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Abstract : Objectives: Mediterranean diet has been associated with lower incidence of cardiovascular disease and cancer. The purpose of our study was to examine the hypothesis that Mediterranean diet may protect against mortality and reduce admission duration in elderly, hospitalized patients. Methods: Sample population included 150 patients (78 men, 72 women, mean age 80 ± 8.2). The following data were taken into account in analysis: anthropometric and laboratory data, dietary habits (MedDiet score), patients' nutritional status [Mini Nutritional Assessment (MNA) score], physical activity (International Physical Activity Questionnaires, IPAQ), smoking status, cause and duration of current admission, medical history (comorbidities, previous admissions). Primary endpoints were mortality (from admission until 6 months afterwards) and duration of admission, compared to national guidelines for closed consolidated medical expenses. Logistic regression and linear regression analysis were performed in order to identify independent predictors for mortality and admission duration difference respectively. Results: According to MNA, nutrition was normal in 54/150 (36%) of patients, 46/150 (30.7%) of them were at risk of malnutrition and the rest 50/150 (33.3%) were malnourished. After performing multivariate logistic regression analysis we found that the odds of death decreased 30% per each unit increase of MedDiet score (OR=0.7, 95% CI:0.6-0.8, $p < 0.0001$). Patients with cancer-related admission were 37.7 times more likely to die, compared to those with infection (OR=37.7, 95% CI:4.4-325, $p=0.001$). According to multivariate linear regression analysis, admission duration was inversely related to Mediterranean diet, since it is decreased 0.18 days on average for each unit increase of MedDiet score (b:-0.18, 95% CI:-0.33 - -0.035, $p=0.02$). Additionally, the duration of current admission increased on average 0.83 days for each previous hospital admission (b:0.83, 95% CI:0.5-1.16, $p<0.0001$). The admission duration of patients with cancer was on average 4.5 days higher than the patients who admitted due to infection (b:4.5, 95% CI:0.9-8, $p=0.015$). Conclusion: Mediterranean diet adequately protects elderly, hospitalized patients against mortality and reduces the duration of hospitalization.

Keywords : Mediterranean diet, malnutrition, nutritional status, prognostic factors for mortality

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