

Dietary Index Associated With Plantar Pressure in Older Women

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Abstract : The main purpose of the study was to explore if a higher level of Elderly Dietary index score was correlated with lower peak plantar pressures. One-hundred and twenty older adults aged ≥ 60 years participated in this cross-sectional study. To assess the level of adherence to nutritional recommendations for older adults, we used Elderly Dietary Index score. Plantar pressures beneath the forefoot, midfoot and hindfoot regions of the foot were determined by pressure platform. Pearson's coefficient of correlations and partial correlations were used to calculate the relationships. In the unadjusted model, higher Elderly Dietary Index was significantly correlated with lower peak plantar pressure beneath the forefoot ($r = -0.45$, $p < 0.001$) and hindfoot ($r = -0.37$, $p < 0.001$) the region, while no significant correlation with peak plantar pressure beneath the ($r = -0.15$, $p = 0.113$) was observed. When we adjusted for age, body-mass index and gait velocity, higher Elderly Dietary Index remained significantly correlated with lower peak plantar pressure beneath the forefoot ($r = -0.41$, $p < 0.001$) and hindfoot ($r = -0.32$, $p < 0.001$) region. This study shows that higher adherence to nutritional recommendations is significantly correlated with lower forefoot and hindfoot peak plantar pressures in older women.

Keywords : elderly, biomechanics, nutrition, associations, force

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