

Purpose: As elderly population is increasing, prediction and prevention of functional decline in the elderly are of great concern. This study aimed to evaluate whether poor self-reported health status (SRHS) could predict functional decline after two years in the elderly population.

Methods: Data from the KLoSA panel, a national representative sample of the aging Koreans, were used. Subjects of investigation were the elderly population aged 65 or more without disability in carrying out activities of daily living (ADL) at baseline. The survey asked respondents about their subjective health status. Setting the respondents who stated their health status 'very good' or 'good' as the reference group, multivariable logistic regression analysis was performed to compare functional decline according to the baseline SRHS.

Results: A total of 2,824 subjects were included in the analysis. Among them, 138 (4.9 %) reported functional decline of at least one of the 7 ADL components after two years. In multivariable logistic regression analysis, SRHS was significantly associated with subsequent functional decline in respondents who chose 'Bad' (odds ratio (OR), 3.32; 95 % confidence interval (CI), 1.71 – 6.44) or 'Very bad' (OR, 4.75; 95 % CI, 2.12 – 10.66). Moreover, poorer SRHS was significantly associated with subsequent impairment in each ADL components. Also, SRHS predicted overall subsequent impairment in the instrumental ADL.

Conclusions: SRHS predicted functional decline after two years in the elderly without baseline disabilities. SRHS can be a good predictor of future functional decline in the elderly population.

LOSS OF INDEPENDENCE IN ACTIVITIES OF DAILY LIVING IN OLDER ADULTS HOSPITALIZED

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Objectives: To describe the changes in activities of daily living (ADL) function occurring before, after hospital admission and discharge in inpatients elderly with medical illness and to assess the effect of frailty on loss of ADL function.

Design: Prospective observational study.

Setting: Brazilian university hospital.

Participants: One-hundred ninety-five patients (mean age 74 years, 59% men).

Measurements: At the time of hospital admission, patients were interviewed about their independence in ADLs (Katz index) 2 weeks before admission (M0), at admission (M1), discharge (M2) and 15 days after discharge (M3) and about frailty (M0) (Cardiovascular Health Study index). Outcome measures included functional decline between M0-M1, between M0-M2, between M0-M3 and between M2-M3.

Results: Eighteen percent of patients were dependent (Katz index < 3) and 38.4% were frailty in M0. The ADL function of 31% of the patients did not decline between M0-M2. Thirty-five percent declined between M0-M3. This included the 17.1% of patients who declined between M0-M1 and failed to recover to baseline function. Fifty-nine percent declined between M1-M2. Twenty-four percent recovered between M2-M3.

The frequency of ADL decline between M0-M3 varied markedly with frailty (OR=5.77, 95% confidence interval 2.23–14.96).

Conclusion: Many hospitalized older people are discharged with ADL function that is worse than their baseline function. Frailty was a risk for losses of ADL function during hospitalization in elderly patients

ARE STATIC AND DYNAMIC BALANCE ABILITIES CORRELATED WITH HANDGRIP STRENGTH IN HEALTHY ELDERLY?

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Several studies report that basic motor abilities, including muscular strength and static and dynamic balance influence the risk of falls in elderly people. However, the relationship between these features is not fully clear. In this study, we measured static posturography and TUG (performed using force platform and wearable inertial sensors) with handgrip strength (HSG) and determined the correlation between balance and HSG performances.

Twenty-two healthy individuals (10M, 12F, age 68.0 SD 8.3) underwent a 30 s static posturography and instrumented TUG using an inertial sensor attached at the lower lumbar level. The center-of-pressure (COP) time series acquired with the force platform were processed to calculate: sway area, COP path length, maximum COP displacements and velocities in AP and ML directions. For the TUG, acceleration data allows calculating: duration of the trial, duration of sit-to-stand, intermediate turning, final turning and stand-to-sit phases. HSG was measured using a validated dynamometer.

Pearson's product-moment correlations was calculated by setting the significance level at $p=0.05$. We found significant positive correlations of HSG with sway area ($r=0.462$), path length ($r=0.510$) COP displacements and velocities in AP and ML direction ($r=0.576$ and 0.422 for displacements, $r=0.563$ and 0.414 for velocities). Moreover HSG is negatively correlated with TUG duration ($r=-0.604$) and final rotation phase ($r=-0.509$). Such results suggest that HSG is a good predictor of static balance, while muscular strength seems to be less of an influence in dynamic balance tasks like TUG.

SESSION 840 (POSTER)

DISEASES OF AGING AS MEANS TO UNDERSTAND THE AGING PROCESS

PROTEIN MALNUTRITION AFFECTS CARTILAGE QUALITY AND COULD CONTRIBUTE TO OSTEOARTHRITIS DEVELOPMENT

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Elderly patients frequently suffer from protein malnutrition leading to major alteration of the somatotrophic axis as well as IGF-I local production. IGF-I is a major anabolic agent for cartilage homeostasis. Indeed a decrease of IGF-I induced by protein malnutrition could affect both cartilage and subchondral bone and may contribute to osteoarthritis