

MEETING ABSTRACTS

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O43**Aging and muscle strength in patients with type 2 diabetes: cross sectional analysis**

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Background

The aging process is associated with the decline of muscle mass and strength and this loss is increased by diabetes, leading to the development of physical disability in older adults with diabetes. Objective: This study aimed to analyse the association between age and muscle strength levels in middle-age and older patients with type 2 diabetes (T2D).

Methods

Ninety-three individuals with T2D (47 men and 46 women; 66.26 ± 6.32 years of age [55 to 80 years]) candidates for Diabetes em Movimento®, a community-based lifestyle intervention programme developed in Vila Real, Portugal (NCT02631902), participated in a cross sectional analysis. Upper limb muscle strength was assessed through performance in the Seated Medicine Ball Throw Test (SMBT) and lower limb through performance in the 30-Second Chair Stand Test (30-SCS). Pearson's correlation coefficients were used to evaluate the associations between age and muscle strength levels, in both genders.

Results

Negative and significant correlations were observed between age and SMBT in men ($r = -0.345$, $p = 0.019$) and women ($r = -0.314$, $p = 0.033$), and between age and 30-SCS in women ($r = -0.409$, $p = 0.005$), but not in men ($r = -0.126$, $p = 0.403$).

Conclusions

In general, the results showed a relation between aging and loss of muscle strength in both genders in patients with T2D. However, men seem more protected than women in the loss of lower limb muscle strength.

Keywords

Muscle strength, aging, Type 2 Diabetes