

Physical Activity In Young Hip Fracture Patients Is Associated With Health-Related Quality Of Life And Strength; Results From The HFU-60 Multicenter Study

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There is limited knowledge on physical activity (PA), health-related quality of life (HRQOL) and muscle strength in younger patients with a hip fracture. The World Health Organization (WHO) recommends a minimum of 150 min of moderate intensity aerobic PA per week or 75 min of vigorous-intensity PA weekly for adults.

We investigated 1) pre-fracture PA and 2) quantified the association between PA, patient characteristics, HRQOL and handgrip strength.

In a prospective multicenter study of 207 adult patients with hip fracture (18-59 years) between 2015-2018, data was collected through medical records, questionnaires, physical tests, and interviews. PA level was assessed using a validated questionnaire, providing a total score 3–19. A score ≥ 11 corresponds to fulfillment of the WHO recommendation for weekly PA. Handgrip strength was measured in kilograms using a handheld dynamometer. HRQOL was assessed using the EQ-5D-3L questionnaire.

59% had low PA (score ≤ 10), of whom 46% had an ASA ≥ 3 , 38% a BMI >25 and 81% a low energy-fracture. PA score ≤ 10 was also associated with a significantly lower HRQOL, weaker hand grip strength (Table2) and higher ASA-grade ($p < 0.001$) versus those with higher PA.

Our young hip fracture population was distributed into active and non-active individuals. Being more active was associated with better health status, handgrip strength and HRQOL. The varied PA and physical abilities suggest a more nuanced understanding when it comes to rehabilitation and follow-up. As decreasing PA currently is reported in children and teenager one can expect more challenges related to inactivity in future cohorts