Abstract

OBJECTIVE: To investigate the effects of whole body vibration in the elderly. DESIGN: Randomized controlled trial. SETTING: Nursing home. PARTICIPANTS: Forty-two elderly volunteers. INTERVENTIONS: Six-week vibration intervention plus physical therapy (PT) (n=22) or PT alone (n=20). MAIN OUTCOME MEASURES: We assessed gait and body balance using the Tinetti test (maximum scores of 12 for gait, 16 for body balance, 28 for global score), motor capacity using the Timed Up & Go (TUG) test, and health-related quality of life (HRQOL) using the Medical Outcomes Study 36-Item Short-Form Health Survey (SF-36). RESULTS: After 6 weeks, the vibration intervention group improved by a mean +/- standard deviation of 2.4 +/- 2.3 points on the gait score compared with no score change in the control group (P < .001). The intervention group improved by 3.5 +/- 2.1 points on the body balance score compared with a decrease of 0.3 +/- 1.2 points in the control group (P < .001). TUG test time decreased by 11.0 +/- 8.6 seconds in the treated group compared with an increase of 2.6 +/- 8.8 seconds in the control group (P < .001). The intervention group had significantly greater improvements from baseline on 8 of 9 items on the SF-36 compared with the control group. CONCLUSIONS: Controlled whole body vibration can improve elements of fall risk and HRQOL in elderly patients.

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