

The effect of whole-body vibration on improving the symptoms of functional constipation: A randomized controlled pilot study

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Objectives

Despite measures like exercise, adequate hydration, increased fiber intake, and timed defecation were suggested for improvement of constipation symptom, none of these measures has been validated in a proper controlled trial. Besides, only a few medications were confirmed effective to control constipation symptoms. The aims of this study were to determine whether whole-body vibration (WBV), a non-invasive oscillation platform, could improve the symptom in functional constipation patients.

Methods

A single-blind, randomized controlled pilot trial was undertaken in patients with functional constipation. Participants were randomized to either experimental group who received WBV or control group without treatment for up to 2 weeks. The WBV (BodyGreen AV-001) was set as 2-mm amplitude at a frequency of 12 Hz. Each patient in experimental group received 15 minutes WBV for total 6 times in 2 weeks. Symptoms were evaluated using Constipation Severity Instrument (CSI) and SF-36 Taiwan version, a measure of health related quality of life (HRQOL).

Results

A total of 27 patients (aged 19-69, 3 men) entered the study. Significant changes of CSI in experiment group ($n = 14$) were noted over within-groups ($P = 0.02$) and between-groups ($P = 0.02$) comparison throughout the study. Instead, we did not found significant change of CSI in control group ($n = 13$), either within-groups or between-groups comparison. There were no significant changes in SF-36, either within-groups or between-groups throughout the study.

Conclusions

A 2-week course of low intensity WBV could significantly improve the symptoms in functional constipation patients.