

Abstract:

Aim: The aim of this study was to determine the impact of therapy by active videogame Nintendo Wii and by Vojta reflex locomotion on a static and dynamic postural control at a group of children with mild cerebral palsy.

Methodology: 14 children (from 6 to 18 years old) were randomly divided into two groups. Both groups received both therapies (active videogame therapy and Vojta reflex locomotion) with a 6 months gap, but in an opposite order. Posturographic measures were obtained before the start of the therapy, after therapy and 8 weeks after the end of the therapy.

Results: After both therapies, there was a significant increase in the COP sway velocity in the mCTSIB subtest on a firm surface with closed eyes and the COP sway velocity in the mCTSIB subtest was reduced on a foam surface with closed eyes. Further, after both therapies, there was a significant reduction in the time required to perform the turnabout in SQT test. Other tests (LOS, RWS, WA, TW) and subtests did not change significantly. There was not a significant difference between therapies, but in the post-therapy tests, VRL had a greater tendency to maintain its effect 8 weeks after therapy.

Conclusion: Both therapies, Vojta reflex locomotion and active videogame Nintendo Wii, have an influence on a postural control of children with cerebral palsy. VRL has a greater tendency to maintain its effect.

Keywords: cerebral palsy, Vojta reflex locomotion, Nintendo Wii, postural control, Balance Master