

VALUES OF BRUININKS OSERETSKY TEST OF MOTOR PROFICIENCY VERSION II (BOT-2) IN BALANCE FUNCTION ASSESSMENT

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Abstract

Introduction: Early identification of balance problem in children is as important as hearing loss identification. Children with balance problem may develop motor skills and postural control impairment which may later impede their school performance.

Method: Thirteen childhood cancer survivors (mean age 14.37 ± 5.83 years old) treated with ototoxic chemotherapy drugs participated in the study. They underwent balance subset of Bruininks Oseretsky Test of Motor Proficiency version II (BOT-2) for balance assessment. The function of the peripheral vestibular system was also assessed using VEMPs and vHIT. The results were then compared to 23 normal healthy children (mean age 11.93 ± 3.55 years old).

Results: Independent *t*-test showed that BOT-2 balance subset mean scale score was significantly different ($t = 4.63$; $df = 32$; $p < 0.05$) between the two groups. In contrast, the VEMPs and vHIT results were not significantly different ($p > 0.05$) between the groups.

Conclusion: We recommend for BOT-2 balance subset to be included as part of the test battery in assessing balance and vestibular function in children.

Keywords: BOT-2, balance function assessment, children

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