

Abstract

Title:

The assessment of the dynamic postural stability of female floorball players

Objectives:

The objective of this thesis is to assess the women's dynamic postural stability who are actively playing floorball at league level and subsequently compare the obtained data with controlled group that is not actively practicing any specific sport activity.

Methods:

There have been incorporated 48 women in this pilot study. The division into the groups was not randomized due to the specification of this survey, therefore it is a quota selection. The experimental group has been piled up of 24 monitored women who are professionally playing floorball on a league level min. 3 years. The control group incorporates 24 women who are practising sports only at a recreational level. In order to evaluate dynamic postural stability, the following device has been used from the company NeuroCom, specifically SmartTest System type and used test batteries: *Limits of Stability*, *Motor Control Test*, *Senzory Organization Test*, *Adaptation Test*, *Rytmic Weight Shift*, *Unilateral Stance* a *Weight Bearing Squat*. The evaluation of measured data was registred and compiled by original programme NeuroCom Balance Manager Software. The obtained measured results from both groups have been statistically evaluated as per statistical method Shapiro – Wilk test, paired t – test, Mann – Whitney test and degree of clinical significance (ES/ Cohenovo d) and it has been consequently compared.

Results:

The hypothesis has not been confirmed by the evaluation of dynamic postural stability which expected better results for female floorball players against population who is practising sports irregularly in more than half of the tests. Statistically significant differences have been found in favor of female floorball players only in test batteries *Senzory Organization Test* (COND6 a VIS), *Adaptation Test* (ADTU1, ADTUP 2 a COMP) a *Rytmic Weight Shift* (AOV – LRS, FBS, LRM, LRF a DCL – LRF).

Keywords: dynamic posturography, postural stability, NeuroCom Smart EquiTest, floorball