Abstract

Title Ways to influence amateur's athletes postural stability

Objectives The aim of this study is to describe the selected parameters of body composition and postural stability of the amateur's athletes (floorball players) group and to assess the efficiency of short-term intervention exercise based on senzomotor stimulation, acral coactivation therapy and plyometrics.

Methods This work is a descriptive work, one part of it is the intervention. Two groups of amateur's athletes (floorball players) were examined during the study - intervention group(n = 16, average height = 178,23 cm (std 7,18), average weight = 80,04 (std 11,53), average age = 25,15 years (std3,31)) and control group(n = 8, average height = 181,48 cm (std 5,59), average weight = 82,29 kg (std 11,20), average age = 27,07 let (2,68)). Each participant underwent the entrance measurement both on Footscan to evaluate the level of postural stability by selected parameters and on InBody 3.0 a Tanita to evaluate the level of body composition by selected parameters. Then the intervention group took part in the intervention exercise. After the six week intervention period underwent both groups the second measurement. The results of both measurements were evaluated, compared and statistically analyzed.

Results The results showed great interindividual variability in majority of selected parameters. This was caused by different fitness level of each amateur athlete (floorball player). The intervention group showed improvement of the average results of all selected parameters. The control group showed larger variety of results and some parameters get worse in comparation to the first results. Except two parameters (body weight of intervention group and fat free body mass of control group) no parameter showed the statistical significant level (p<0,05).

Key words Balance abilities, stabilometry, compensation exercises, SMS, acral coactivation therapy, plyometrics, body posture