Abstract

Title: Velocity characteristics of soccer players

Objectives: The main goal of the thesis id to evaluate and analyze velocity and agility abilities of elite players. Analyze the change direction in velocity in the form of acceleration and deceleration turn over to the opposite direction. Compare the movement task session to the right and left rotating lower limb.

Methods: Measured group consisted of 35 players with these athropometric values (age = $20\pm3{,}25$ years, height = $187 \pm 0{,}648$ m, weight = 72 ± 3.25 kg). Players completed the warm-up prior to testing (activation stretching, stretching, warm up and subsequent motion game).

Measured tested portion was 5m, followed by turning on the predefined leg and running backwards to the photocell gate (test 505). Each player completed 2 attemps on the right and 2 attemps on the left leg.

Method for evaluating the kinematics used 2D video analysis. For video processing software was used Bio TEMA (ImageSystems Ltd., Sweden).

Results: Players in test of velocity achieved different times on rotation right and left side. However these differences were not significant. In the first step of slowing and accelerating players do not reach comparable velocity. They can compare velocity on the second step. On right side players will use the stride length at step 2 and step 3. In the case of the the left side, they use step lenght only in 2 step. Testing for correlation and Pearson correlation coefficient and right revolutions comparable in total time results in a non – significant relationship ($r= 0{,}24$; $p= 0{,}165$).

Keywords: coordination, velocity, change direction, acceleration, deceleration, strengh