Abstract

Title: Evaluation of the relationship between general motor coordination and game performance of football players due to different biological age.

Objectives: Finding the relationship between the level of the level of motor coordination and the subjective assessment of game performance of football players by the coach due to biological age and the different pace of biological maturation of football players in pupils categories (U12-U14).

Methods: The research group consisted of 43 players (average age 12.8±1.0 years) from pupils categories (U12-U14) from the professional club in the Czech republic. The method of dual energy X-ray absorptiometry (DEXA) was used to determine biological age. The Körperkoordinationtest für Kinder (KTK) was used to assess the level of motor coordination. Game performance was evaluated using a questionnaire filled out by the coaches of the individual categories.

Results: Of the entire research population, 65,12 % of players achieved verbal ratings of „excellent“, 32,55 % „above average“ and 2,33 % „average“. The most correlated variable with the performance evaluation was the subtest from the KTK „jumps on one leg“, which had a correlation of 0,43. The game performance questionnaire correlated only 0,13 with the motor quotient from the KTK test. Playes with the best motor coordination are seen by coaches as the best in game performance, but the differences are insignificant (0,81) even in terms of substantive significance between groups (<0,50). In terms of maturation, the highest motor quotient was achieved by concurrent (average) players, but the statistical significance corresponded to the value of 0,11, which indicates insignificant differences between the groups. From the point of view of substantive significance, the

concurrent players (average) differed from the accelerated ones by a significant difference (Hedges's g = 1,34). There was no significant difference (Hedges's g = 0,05) compared to late players. Coaches see accelerated players as the best in game performance, but in terms of significance, the differences are insignificant (0,11). But the substantive significance showed a big difference between accelerated and late (Hedges's g = 1,29) and accelerated and concurrent players (average) (Hedges's g = 0,95). No siggnificant difference in terms of substantive significance was found between the concurrent (average) and late players biological groups.

Conclusion: Improving the level of motor coordination can contribute to increasing the overall game performance of football players. Coaches should include exercises to improve motor coordination in training. At the same time, the should be more careful in evaluating the game performance of players of different maturity groups and not see accelerated players as more talented compared to biologically late players.

Key words: Football, pupil categories, motor coordination, game performance, biological age.