

Abstract

- Title:** The significance of relationship between mesomorphy component and neuromotor development at football players population U12 selected from the highest czech league.
- Objectives:** The aim of this thesis is to determine the link between the level of mesomorphy (one of the components of somatotype) and neuromotor age at the first league football players U12 from FK Dukla Praha and Bohemians 1905.
- Methods:** The main research method was the method of observation. The research sample contained a total of 41 footballers. For determining the somatotype we used the methodology from Heath – Carter 1967. The degree of neuromotor development was assessed by Bruininks Oseretsky Test of Motor Proficiency (BOT – 2). The estimation of the biological age was calculated from the proportional, growth and weight age and for the calculation of the decimal age we used the equation from Šelingerová (1992). In order to analyse the data we used the basic descriptive statistics, the two-sample T - test, the analysis of variance, the correlation and the linear regression.
- Results:** The results revealed that there is no significant relationship $r^2 = 0,04$ % between the level of mesomorphy (rated by Heath – Carter) and the performance in neuromotoric. Further, subsequent analysis of the separate muscle component in mesomorphy expressed as a ratio of the circumference of biceps and calves to a body size, did not show any significant relationship to the performance in neuromotoric (neuromotoric age) $r^2 = 0,0004$ % - 0,07 %. However, an interesting finding in the evaluation of the neuromotoric performance was that the players whose calendar and biological age do not correspond in terms of the biological lateness show significantly better performance $p < 0,05$ and Hays $\omega > 0,06$ in comparison to the biologically accelerated players.
- Keywords:** somatotype, football, BOT - 2 mesomorphy, biological and decimal age