

Contrastive Analysis of Parameters Registered in Training Rowers and the Impact on the Olympic Performance

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Abstract : The management of the training process in sports is closely related to the awareness of the close connection between performance and the morphological, functional and psychological characteristics of the athlete's body. Achieving high results in Olympic sports is influenced, on the one hand, by the genetically determined characteristics of the body and, on the other hand, by the morphological, functional and motor abilities of the athlete. Taking into account the importance of properly understanding the evolutionary specificity of athletes to assess their competitive potential, this study provides a comparative analysis of the parameters that characterize the growth and development of the level of adaptation of sweeping rowers, considering the growth interval between 12 and 20 years. The study established that, in the multi-annual training process, the bodies of the targeted athletes register significant adaptive changes while analyzing parameters of the morphological, functional, psychomotor and sports-technical spheres. As a result of the influence of physical efforts, both specific and non-specific, there is an increase in the adaptability of the body, its transfer to a much higher level of functionality within the parameters, useful and economical adaptive reactions influenced by environmental factors, be they internal or external. The research was carried out for 7 years, on a group of 28 athletes, following their evolution and recording the specific parameters of each age stage. In order to determine the level of physical, morpho-functional, psychomotor development and technical training of rowers, the screening data were applied at the State University of Physical Education and Sports in the Republic of Moldova. During the research, measurements were made on the waist, in the standing and sitting position, arm span, weight, circumference and chest perimeter, vital capacity of the lungs, with the subsequent determination of the vital index (tolerance level to oxygen deficiency in venous blood in Stange and Genchi breath-taking tests that characterize the level of oxygen saturation, absolute and relative strength of the hand and back, calculation of body mass and morphological maturity indices (Kettle index), body surface area (body gait), psychomotor tests (Romberg test), test-tepping 10 s., reaction to a moving object, visual and auditory-motor reaction, recording of technical parameters of rowing on a competitive distance of 200 m. At the end of the study it was found that highly performance in sports is to be associated on the one hand with the genetically determined characteristics of the body and, on the other hand, with favorable adaptive reactions and energy saving, as well as morphofunctional changes influenced by internal and external environmental factors. The importance of the results obtained at the end of the study was positively reflected in obtaining the maximum level of training of athletes in order to demonstrate performance in large-scale competitions and mostly in the Olympic Games.

Keywords : olympics, parameters, performance, peak

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