Abstract

Title: Effect of the eight-week intervention training program with the CrossFit system on physical fitness

Objective: The aim of the thesis is to examine the influence of an individual intervention CrossFit training program on the development of strength and endurance in a semi-professional, systematically training 21 years old athlete.

Methods: The thesis has the characteristics of case study. We firstly carried out a research and followed with an intervention. The theoretical part consists of the research, i.e., the information about fitness and physical condition, CrossFit, strength and endurance training, diagnostics, the effects of the training, periodization of the training and regeneration. The practical part consists of the casuistic of the proband, who went through an 8-week training program. In order to determine the importance of the tests, we had to establish their error rate. To do so, we added up the error rate of the method, that is 1%, and the biological error rate, that is 2%. Thus, the final error rate is 3% of the initial value. We can consider the improvement in the test significant if it is greater than 3%. To evaluate, we applied the methods of analysis and comparison of the first week's results with the final week's results.

Results: We observed an improvement in both endurance and strength thanks to the 8-week program. There was a significant improvement of 2,5 kg in the lifted weight with the following exercises: snatch, clean and jerk, bench press and the strict press. We further observed an improvement of 5,0 kg in deadlift and 4,0 kg in Turkish get-up. We also consider the improvement in the execution of strict pull-up and triceps dip significant. We do not consider handstand push-up, back squat, 2 km rowing and 10-minute AirBike test significant. We need to bear in mind the proband's high initial level of fitness. It affects the absolute values of the changes induced by the training.

Key words: strength training, endurance training, women, motor evaluations