

Abstract

Title: Comparison of results spiroergometric examination competitors in whitewater slalom on the crank ergometer and in canoeing.

Objectives: The aim of the study was to investigate the relationship between functional indicators of aerobic exercise diagnostics paddling on flat water canoeing and crank ergometry in the upper extremities.

Methods: To obtain the data, we used a standardized stress test exercise test of upper limbs on the crank ergometer and spiroergometric examination when paddling on calm water stress according to the same protocol. The test was used in both cases the devices Cortex Metamax 3B and sport tester Polar RS 800. To determine the functional relationships of indicators have been ingested correlation analysis. The degree of dependence was determined by Pearson correlation coefficient.

Results: The results highlighted the differences between paddling a canoe on flat water and test crank ergometry upper extremities. Average values of function parameters varied in the range of 5,60 to 14,71 %. Correlation analysis showed a strong dependence in 3 of the 6 monitored function pointers: DF $r = 0,761$, $r = 0,903$ VMAX, O2tep $r = 0,921$ for the remaining three indicators were demonstrated a low level of dependence VO2max $r = 0,095$, $r = -0,552$ HR, VT $r = 0,348$, $r = -0,290$ LA.

Keywords: Crank ergometry, canoeing, spiroergometry, whitewater slalom, exercise testing.