Abstract

Title: Functional Profile of Performance Billiard Players

Objectives: The main aim of thesis was to find out maximal functional characteristics and body composition of performance billiard players by using laboratory testing. Next step was to define load intensity during simulated match.

Methods: There were used biomedical measurements as a body measuring, bioelectrical impedance, laboratory spiroergometric measuring by maximal stress testing. Field spiroergometric measuring was provide during simulated match in pool hall. To find the role of physical fitness in performance billiard were used half structured interview with open questions and online survey.

Results: The findings show that tested billiard players achieve levels of physical fitness from average to very good values. But some of them are classified as overweight and obese. Long-time playing billiard does not have any important influence on asymmetric composition of muscle mass of upper limbs. During playing billiard an oxygen consumption didn’t get over 30% of VO₂max and values of heart rate were between 39 to 59% HRmax. During playing billiard an energy expenditure grows from 222 to 330% of BM. Billiard energetic demands of tested players are moving between 14.6 kJ to 29.3 kJ. Another result of thesis is a statement about the role of physical fitness in performance billiard.

Keywords: billiard, functional characteristics, maximal oxygen consumption (VO₂max), load intensity, heart rate, energy expenditure, physical fitness