ABSTRACT

Title: The influence of breathing techniques on lifted load during the bench-press

Objectives: The main aim of this thesis is to determine the differences in total volume of lifted load during the bench-press exercise with resistance of 1RM, 4RM, 8RM and 12RM, while using different breathing techniques (VM – Valsalva maneuver, PAC – lung packing, HB – hold breath, RB – reverse breathing and FBP – flat bench-press combined with free-breathing pattern) in intermediate and advanced athletes of resistance training.

Methods: A method of randomized experimental research, done in predetermined laboratory conditions, was used during the evaluation of the differences between breathing patterns. A method of analysis was used to evaluate the collected data.

Results: The result of this thesis were a significant changes in total lifted load during the bench-press exercise with resistance of 1RM, 4RM, 8RM and 12RM, while using the RB techinque ($p<0,05$). VM, PAC, HB and FBP are breathing techniques with no significant changes, while lifting maximal and submaximal loads during the bench-press exercise. Therefore, we consider Valsalva maneuver to be the best breathing technique in relation to lifted loads during the bench-press exercise in intermediate and advanced athletes of resistance training, as it already exists in the physiologically natural breathing pattern.

Keywords: bench-press, resistance training, breathing techniques, lifted load