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*Abstract*

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**VO<sub>2</sub>MAX TEST IS NOT ALTERED BY A SUBMAXIMUM EXERCISE**

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ABSTRACT

**INTRODUCTION:** The Maximum Oxygen Consumption (VO<sub>2max</sub>) and Ventilatory anaerobic threshold (VT), is measured using progressive exercise protocol until exhaustion, these results can be affected by a previous submaximum exercise. **PURPOSE:** The purpose of this study was evaluate the reproducibility of maximum effort test after a submaximum exercise. **METHODS:** 19 subjects (mean  $\pm$  SD; age, 21.8 $\pm$ 2.5 years; body mass, 71.0 $\pm$ 10.6 and height, 175.2 $\pm$ 8.1) participated in this study. During two days of assessment separately for at least 24h recovery subjects performed the following tests: Day 1 a maximum effort test and a submaximum exercise at 80% of VO<sub>2max</sub>. Day 2 the order of the tests performed on day 1 was reversed. **RESULTS:** No significant differences were found in the VO<sub>2max</sub> or ventilatory thresholds determined in both tests of maximum effort. (VO<sub>2max</sub> 54.2  $\pm$  6.8 vs 55.1  $\pm$  6.4 (ml·kg<sup>-1</sup>·min<sup>-1</sup>), ICC; 0.91, CV; 3.9  $\pm$  2.1); (VO<sub>2 RCT</sub> 45.6  $\pm$  6.4 vs 45.9  $\pm$  5.7 (ml·kg<sup>-1</sup>·min<sup>-1</sup>) ICC; 0.96, CV; 3.0  $\pm$  2.1)( VO<sub>2 VT</sub> 35.6  $\pm$  4.7 vs 35.6  $\pm$  4.7 (ml·kg<sup>-1</sup>·min<sup>-1</sup>) ICC; 0.87, CV; 4.9  $\pm$  3.9). **CONCLUSION:** The results of the present study showed a high reproducibility of the data obtained when maximum effort test is assessed (i.e., VO<sub>2max</sub> and ventilatory threshold), regardless the submaximum exercise.