

*1st International Symposium of Advanced Topics in Exercise Physiology,
Baja California, México*

Abstract

VO₂MAX TEST IS NOT ALTERED BY A SUBMAXIMUM EXERCISE

MACHADO-PARRA, JUAN P.¹ AND RODRÍGUEZ-MARROYO, JOSÉ A.²

¹FACULTAD DE DEPORTES UNIVERSIDAD AUTÓNOMA DE BAJA CALIFORNIA,
ENSENADA, MEXICO

²DEPARTMENT OF PHYSICAL EDUCATION AND SPORTS, INSTITUTE OF
BIOMEDICINE (IBIOMED), UNIVERSITY OF LEON, LEON, SPAIN

Category: Master

Advisor / Mentor: machado.juan@uabc.edu.mx

ABSTRACT

INTRODUCTION: The Maximum Oxygen Consumption (VO_{2max}) 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_{2max}. Day 2 the order of the tests performed on day 1 was reversed. **RESULTS:** No significant differences were found in the VO_{2max} or ventilatory thresholds determined in both tests of maximum effort. (VO_{2max} 54.2 \pm 6.8 vs 55.1 \pm 6.4 (ml·kg⁻¹·min⁻¹), ICC; 0.91, CV; 3.9 \pm 2.1); (VO_{2 RCT} 45.6 \pm 6.4 vs 45.9 \pm 5.7 (ml·kg⁻¹·min⁻¹) ICC; 0.96, CV; 3.0 \pm 2.1)(VO_{2 VT} 35.6 \pm 4.7 vs 35.6 \pm 4.7 (ml·kg⁻¹·min⁻¹) 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_{2max} and ventilatory threshold), regardless the submaximum exercise.