

Reproducibility of the lactate minimum test in wistar rats after training at the maximal lactate steady state intensity #28

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The aim of this study was to verify the reproducibility of the lactate minimum (LM) test after four weeks of aerobic training, as well as its validity with the maximal lactate steady state (MLSS) in *Wistar* rats submitted to swimming exercise. Ten rats with 90 days were used. The aerobic and anaerobic capacity was determined by the LM test before and after the training. The protocol of MLSS was also applied before and after the training. Training was accomplished for four weeks, being the first two weeks with a volume of 30 minutes and the other two weeks with a volume of 45 minutes, both in the intensity of MLSS. With the training, the intensity of LM and the concentration of LM [Lac] increased of 16.19 ± 1.87 to 18.84 ± 0.96 g and of 3.58 ± 1.78 to 5.42 ± 1.13 mmol/L, respectively. The intensity of MLSS increased of 18.64 ± 1.75 to 19.97 ± 2.15 g. The intensity of LM and MLSS in the pre and post-training phase presented high correlations ($r=0.92$) and ($r=0.87$), respectively. It was concluded that the LM test presented sensibility to the effects of the training, as well as validity with gold standard test (MLSS) in rats submitted to swimming exercise.

Key words: reproducibility; lactate minimum; maximal lactate steady state.