The physical activity submitted the body a metabolic conditions that can be able to promote important biochemical changes, leading to generation of reactive oxygen species. Exacerbated production of these species can result in oxidative stress, damaging the cell structures. The aim of this study was to evaluate the effect of exercise on the activity of defense antioxidant enzymes in the muscle rats. For this purpose, we used 16 adult Fisher rats divided into two groups, control (C) and exercise (E). The animals in group E received endurance exercise training that consisted of two steps. The first was an adjustment period that lasted one week and the second, lasting eight weeks, the animals were encouraged to conduct series of jumps in a tank with water, with a charge-coupled to the chest enough to promote its submersion. After the trial period, were analyzed in muscle tissue levels of thiobarbituric acid reactive substances, the activity of catalase and superoxide dismutase and total glutathione content. Data were analyzed using GraphPad Prism version 5.00, considering a 5% significance. All parameters analyzed showed no statistically significant difference between groups. In this sense, physical activity caused metabolic adaptations neutralizing the increase of lipoperoxidation and consequently normalizing the level of response of antioxidant defenses.

Word Keys: physical activity, oxidative stress, defenses antioxidant
Supported by: CNPq and CAPES