

THE EFFECT OF THE ACUTE EXERCISE ON THE SALIVARY BIOMARKERS IN ATHLETES ELDERLIES

Magalhães Neto, A.M.¹; Resende, N.M.¹; Lamounier, R.P.M.S.¹; Silva, V.L.C.R.¹; Brito, A.²; Mineo, J.R.³; Heredia, R.A.G.⁴; Espindola, F.S.¹

Institutos ¹Genética e Bioquímica e ³Ciências Biomédicas; Setores ²Análise Clínicas e ⁴Eletrocardiologia. Universidade Federal de Uberlândia, Brazil.

The acute exercise takes physiological changes that are showing through of plasmatic and salivary biomarkers. The effect of exercise was evaluated using Bruce protocol. Twenty four elderlies were separated by three groups of active women, active men and athlete men. Total protein of the total saliva and blood lactate, alpha-amylase activity, nitric oxide (NO) and immunoglobulin A (IgA) were analyzed. The data of salivary total protein and blood lactate in the elderlies athletes showed a correlation ($r=0,7282$). The total protein concentrations and activity of the salivary alpha-amylase increased in the end of the exercise of all groups ($p<0,05$). Salivary NO differs for elderlies athletes ($p<0,04$) when compared with the other groups. Salivary IgA increased after-exercise in all groups. The correlation between the salivary total protein and blood lactate can provide physiological insights of functional systems in exercise session for elderly person. The NO concentration is related with the intensity of the exercise and may helps to prevent futures cardiovascular complications. Salivary IgA levels higher in the end of the acute exercise suggested better immunological strengths. Therefore, analyzing salivary biomarkers to evaluate the effect of the acute exercise in different groups of aged population is a promising approach.

Supported by FAPEMIG, CAPES.