FERMENTED MILK EFFECT ON SERUM INSULIN OF INDIVIDUALS WITH METABOLIC SYNDROME


*Lactobacillus plantarum* is not considered as probiotic micro-organism by brazilian legislation, and it is not commonly found in fermented dairy products. However, in Europe and in the United States, that claim is established and many studies confirm the benefits promoted by strains of this specie. Currently, interest has been focused on the impact of lactic acid bacteria on human metabolism and over clinical parameters related to metabolic syndrome. Insulin is a hormone which exerts a central role in regulating glucose homeostasis through its entry into cells. The objective of this study was to evaluate the effects of ingesting *L. plantarum* on insulin serum levels of individuals with metabolic syndrome, during a supplementation with fermented milk in 06 weeks period. The fermented milk was prepared with *L. plantarum*-Lp 115 inoculum (10% w/v) reconstituted skim milk powder (10% w/v), refined sugar (8% w/v), sterilized (121°C/15 minutes), incubated at 37°C for 40 hours. The experiment was conducted with 37 subjects divided into groups of supplementation and placebo. Blood samples were collected before and after fermented beverage intervention period. The results were analyzed by Chi-square and Wilcoxon (p<0.05) tests. It was observed that the dosage of 8x10^10 CFU/mL administered to the group of supplementation did not significantly (p=0.475) insulin levels during the intervention. Therefore, it is concluded that ingestion of *L. plantarum* Lp-115 dose and duration studied was not able to improve insulin levels in patients with metabolic syndrome.