Abstract
Flaxseed has been suggested play preventive and therapeutic roles in cardiovascular disease. The aim of this study was to evaluate the influence of flaxseed-supplemented dietary in healthy rats. We used 30 rats divided in three groups (n = 10): Control Group (C) was fed with a casein-based chow (10% protein; 5% fiber; 7% lipid); Flaxseed Group (F) was fed with the casein-based chow supplemented with 25% flaxseed (10% protein; 7% fiber; 11% lipid); Internal Control Group (IC) was fed with the casein-based chow plus soybean oil and fiber (10% protein; 7% fiber; 11% lipid). The blood was obtained by cardiac puncture (after 180 days) and the serum was separated for lipid profile, glucose and uric acid analyses by commercial kit. Although all groups fed the same amount of ration, F group presented low (p < 0.05) body mass than C and IC groups. Total cholesterol and triacylglycerol were similar between all groups. F group presented HDL-C (High-density lipoprotein cholesterol) increase (p < 0.05) in 47% when compared C group. The LDL-C (Low-density lipoprotein cholesterol), glucose and uric acid were reduced (p < 0.05) 22%, 78%, 64%, respectively, in F compared to C group. All results together suggest that the supplementation with 20% of flaxseed might be important to prevent cardiovascular disorders.

Keywords
Cardiovascular risk factors, Flaxseed, Lipid profile, Prevention, Supplementation, Uric acid.