Abstract
Cardiovascular diseases are a major public health problem. Different risk factors have been recognized as the main causes of the development and progression of cardiovascular diseases. Flaxseed is a source of dietary fiber, lignans, and alpha-linolenic acid. The aim of this study was to evaluate the effects of prolonged supplementation with flaxseed flour as preventive therapy on cardiovascular risk parameters in healthy Wistar rats. Material and Methods: Female Wistar rats were divided into two groups after giving birth and during lactation period: the control group was fed with diet based on casein and the flaxseed group was fed with diet based on casein containing 25% of flaxseed flour. At weaning, 10 male offspring from each group continued to receive the same diets from their mothers during 250 days. The body weight, visceral fat mass, cholesterol, triglycerides, HDL, VLDL, glucose and thickness of the aorta were analyzed. Results: The body weight, visceral fat mass, cholesterol, triglycerides, HDL, VLDL, glucose and thickness of the aorta values were statistically lower when compared to control group. Conclusion: The data suggest that flaxseed flour supplementation in healthy wistar rats for a prolonged period may decrease the thickness of the aorta and may be used as a preventive measure in modulating some modifiable risk factors related to cardiovascular disease.

Keywords
Key words, Flaxseed, Rats, Cardiovascular disease, Lipid profile.