

## EFFECT OF UVAIA JUICE IN THE NON-ALCOHOLIC FATTY LIVER DISEASE (NAFLD) IN HYPERCHOLESTEROLEMIC RATS

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**Introduction:** Nonalcoholic fatty liver disease (NAFLD) is a growing health problem and is currently the most common chronic liver disease. Emerging experimental evidence has linked altered hepatic cholesterol homeostasis and free cholesterol accumulation to the pathogenesis of NAFLD. Recent studies have classified uvaia as source of bioactive compounds and high antioxidant capacity *in vitro*. **Objective:** Considering the uvaia fruit characteristics related to its antioxidant activity and phytochemical composition the objective of this study was to evaluate the effect of uvaia juice in NAFLD in rats fed a hypercholesterolemic diet. **Methods:** Fischer rats were divided into 4 groups of 8 animals according to the treatment received: control group (C) received AIN-93M diet; control uvaia (CUv), received AIN-93M diet and 2 mL of uvaia juice; hypercholesterolemic (H) received hypercholesterolemic diet and hypercholesterolemic group uvaia (HUv) received hypercholesterolemic diet and 2 mL of uvaia juice. Weight gain, liver weight and caloric intake were estimated. The extraction of liver lipids was described by FOLCH et al. (1957). Histological hepatic tissue search used hematoxylin and eosin (H&E) method and analyses were performed in the software ImageJ. The data were analyzed by one-way analysis of variance. Differences were considered significant at  $p < 0,05$ . **Results:** The animal groups showed no significant difference in weight gain and caloric intake. The H and HUv groups showed increased liver weight. The uvaia juice altered the concentration in the liver lipids in group HUv compared to the group fed hypercholesterolemic diet. The HUv group showed lower area of the fat droplets and less droplets when analyzed cell / field. **Conclusion:** These results suggest that supplementation with the Uvaia juice demonstrated a protective role in NAFLD in model of hypercholesterolemia in rats.

**Key words:** Uvaia juice, NAFLD, Hypercholesterolemic diet.

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