THE EFFECT OF AVOCADO DRINK (*Persea americana Mill*) ON THE INCIDENCE OF BALLOONING HEPATOCYTES IN THE LIVER ORGANS OF RATS (*Rattus novergicus*) INDUCED BY HYPERCHOLESTEROLEMIA

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Background: Hypercholesterolemia is one of the risk factors for Non-Alcoholic Fatty Liver Disease (NAFLD) which is characterized by the formation of ballooning hepatocytes. Avocados are one of the fruits that are easily available and contain high antioxidants and various active compounds. This study aims to determine the effect of avocado drink on the incidence of ballooning hepatocytes in the liver organs of rats induced by hypercholesterolemia.

Method: This study used post-test only with a control group design. The study used biological materials stored in rat liver organs which were divided into 5 groups as described in the flowchart (Figure 1). All data were statistically analyzed with The One-Way ANOVA test and Bonferroni Post-Hoc test.

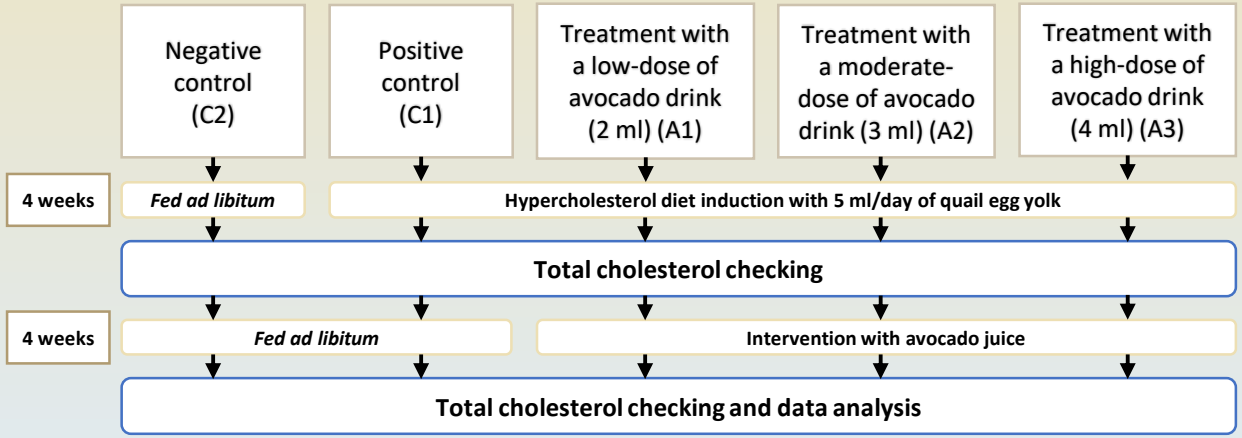

Figure 1. Flowchart of hyper cholesterol diet induction and intervention with avocado drink.

Result: Mean of total of fatty liver cells after hyper cholesterol diet induction and after intervention with avocado drink are described below. Based on The One-Way ANOVA test and Bonferroni Post-Hoc test, there was a significant difference ($p<0.05$) on the number of ballooning hepatocytes with a value of $p=0.000$.

Group	Total of Fatty Liver Cells (average cell count ± SD)	P value
Negative control (C2)	10.93±1.44	0.000
Positive control (C1)	39.13±1.00	
Treatment 1 (A1)	31.26±3.33	
Treatment 2 (A2)	24.26±2.85	
Treatment 3 (A3)	17.55±1.85	

Table 1. Total of Fatty Liver Cells in Rats.

Conclusion: The effect of avocado drink (Persea americana Mill) had a significant effect on the incidence of ballooning hepatocytes in the liver organs of rats induced by a hyper cholesterol diet

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