

EFFECT OF ADMINISTRATION OF AVOCADO JUICE (*PERSEA AMERICANA MILL*) ON RAT-INDUCED MALONDIALDEHID (*RATTUS NORVEGICUS*) LEVELS



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Background: Nowadays fatty foods are much loved. Along with increasing cholesterol levels, the higher the blood MDA level. Avocado fruit (*Persea americana mill*) has an unsaturated fat content of omega 9, vitamin A, C, E that serves as a powerful antioxidant. Vitamin B3, B5, beta sitosterol, and selenium as hypolipidemic agents.

Method: This research is an experimental study that uses pre-posttest design with control group design. The subjects used 15 rat (*Rattus norvegicus*) strains of male wistar. In this study there were 5 groups, as described in the flowchart (Figure 1) Blood serum is performed MDA measurement using TBARS method. Normality analysis using shapiro-wilk test followed by homogeneity test with one way ANOVA method then conducted bivariate analysis test with friedman test.

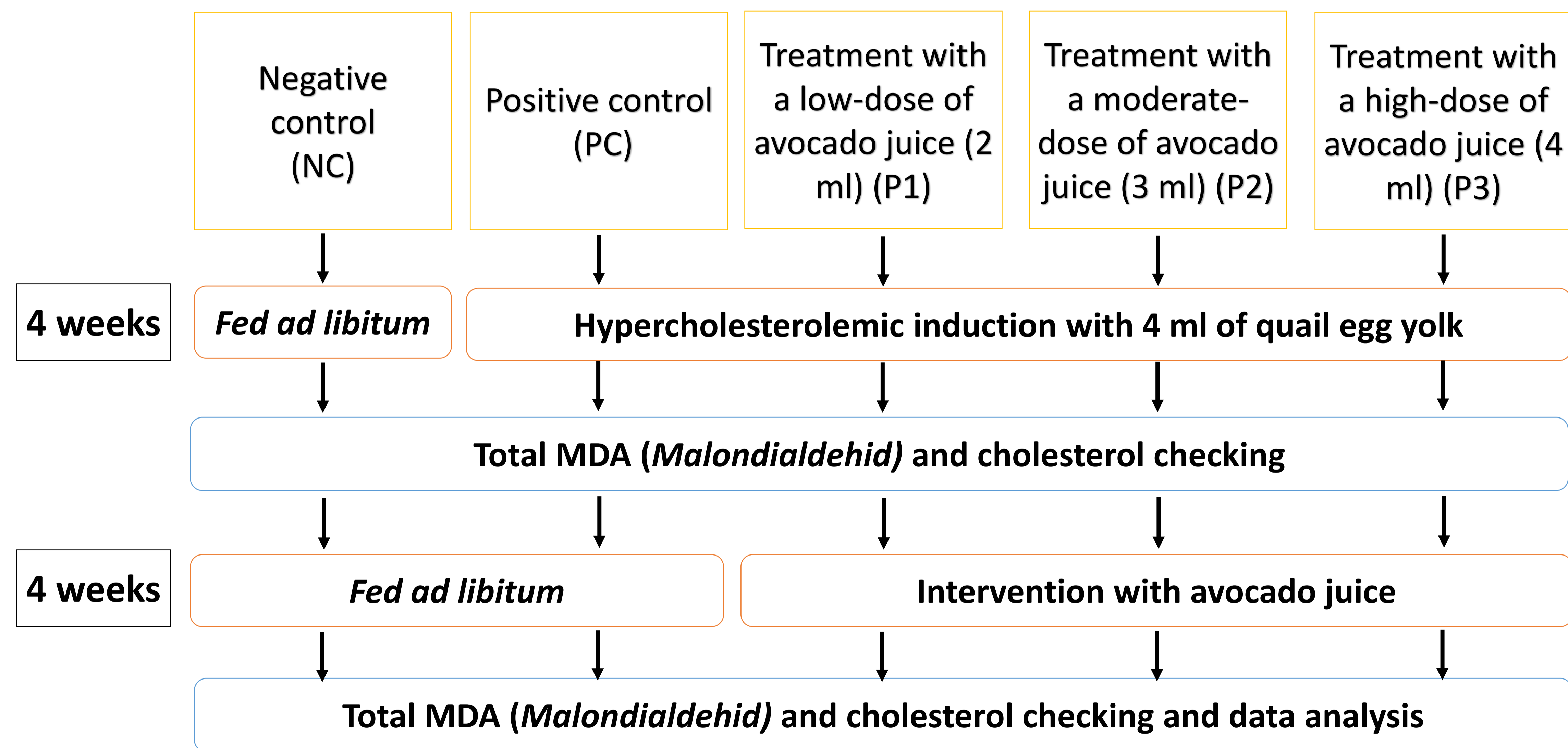


Figure 1. Flowchart of hyperlipid induction and intervention with avocado juice.

Result: Based on shapiro-wilk test obtained value ($p < 0.05$) so that the data is abnormally distributed. Then continued homogeneity test of pre-posttest data using one way test ANOVA. Bivariate analysis testing method with friedman test showed results ($p > 0.05$) so that there are no significant differences between negative, positive and treatment control groups.

Group	Mean Cholesterol Pre-Test (mg/dL)	Mean Cholesterol Post-Test (mg/dL)	Intepretation
Positive control (NC)	231.59 ± 6.48	222.48 ± 2.7	Decrease 9.11
Negative control (PC)	97.02 ± 0.89	96.22 ± 0.93	Decrease 0.8
Treatment 1 (P1)	220.69 ± 5.79	153.60 ± 2.51	Decrease 67.1
Treatment 2 (P2)	228.08 ± 2.95	132.13 ± 3.23	Decrease 95.95
Treatment 3 (P3)	234.47 ± 5.07	110.55 ± 3.34	Decrease 123.92

Table 1. Mean Pre-Post Test Cholesterol Levels in Rats.

Group	Mean MDA Pre-Test (nmol/L)	Mean MDA Post-Test (nmol/L)	Intepretation
Positive control (NC)	9.03 ± 0.4	8.96 ± 0.5	Decrease 0.08
Negative control (PC)	0.87 ± 0.16	1.66 ± 0.12	Increase 0,29
Treatment 1 (P1)	7.76 ± 0.3	6.49 ± 0.29	Decrease 1.27
Treatment 2 (P2)	8.12 ± 0.34	3.64 ± 0.21	Decrease 4.48
Treatment 3 (P3)	9.10 ± 0.67	2.34 ± 0.1	Decrease 6,76

Table 2. Mean MDA Pre-Post Test Levels in Rats

Conclusion: Administration of avocado juice (*Perseana americana mill*) did not affect levels of MDA (Malondialdehyd) in mice (*Rattus norvegicus*) induced by egg yolks.

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