

The Effect of Giving Combination Lime Juice and Pineapple juice on Reducing Total Cholesterol Levels in Wistar Dyslipidemia Rats (*Pengaruh Pemberian Kombinasi Perasan Jeruk Nipis dan Sari Nanas Terhadap Penurunan Kadar Kolesterol Total Tikus Wistar Dislipidemia*)

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ABSTRACT

Dyslipidemia is an abnormal fat metabolism disorder that can cause an increase or decrease in the fat fraction in blood plasma. Abnormalities of fat fraction abnormalities are an increase in total cholesterol levels. Alternative non-pharmacological therapy, nutritional therapy is a low-fat diet with attention to saturated fat intake, it is recommended to consume fruits and vegetables that contain flavonoids. Lime contains the main flavonoid in the form of hesperidin. In addition to lime, pineapple fruit has polyphenolic compounds, namely flavonoids in the form of myricetin compounds. The purpose of the study was to determine the effect of the combination of lime juice and pineapple juice on the reduction of total cholesterol levels in dyslipidemic wistar rats. This type of research is true experimental with pretest-posttest with control group and randomized. The research was carried out from July to August 2021 at the Biomedical Laboratory of the Faculty of Dentistry, University of Jember. The samples used were 21 white wistar rats, male, 2-3 months old, weighing 150-250 grams. The samples consisted of a negative control group (K-) given Ratbio feed and drinking water (adlibitum), a positive control group (K+) induced dyslipidemia, a treatment group (P1) rats induced dyslipidemia and given the intervention of a combination of lime juice and pineapple juice. Induction of dyslipidemia using used cooking oil as much as 2.5 ml/200 gram body weight rats/day. The intervention was giving a combination of lime juice and pineapple juice in treatment 1 (P1) with a dose of 10 ml/head/day by means of sonde. The results of the mean total cholesterol levels in the pretest group K-=65.2 mg/dl, K+=61 mg/dl, P1=67 mg/dl, the value ($p=0.873$) and the average post-test total cholesterol levels in the K-=71 group. ,8 mg/dl, K+=75.8 mg/dl, P1=68,6 mg/dl, value ($p=0.627$). There was no difference in total cholesterol levels before and after the intervention of the combination of lime juice and pineapple juice and there was no significant difference ($p = 0.238$).

Keywords: Dyslipidemia, Total Cholesterol Levels and Combination of Lime Juice and Pineapple juice