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ABSTRAK

Kolesterol tinggi dapat membahayakan tubuh apabila terdapat dalam jumlah yang banyak dalam darah, sehingga terjadi endapan pada dinding pembuluh darah dan terjadi penyempitan yang dinamakan *Ateriosklerosis*. Tujuan dari penelitian ini adalah untuk mengetahui adanya pengaruh pemberian jus tomat dan *virgin coconut oil* terhadap perubahan kadar kolesterol total di Posbindu Desa Blabak.

Desain Penelitian ini *pre experimental* dengan pendekatan *One Grub Pretest-Posttest*, penelitian ini dilakukan di Posbindu Desa Blabak dengan teknik *randome sampling* dan jumlah sampel penelitian 20 responden. Alat ukur yang digunakan adalah pemeriksaan profil lipid, data diuji dengan *Paired sampel T- Test*.

Hasil penelitian menunjukkan rata-rata perubahan kadar kolesterol total awal dan akhir responden yang diberikan kombinasi jus tomat dan *virgin coconut oil* selama 14 hari dengan dosis 230 ml adalah sebesar 26,10 mg/dl. Hasil uji statistik menunjukkan terdapat perbedaan kadar kolesterol total awal dan akhir responden setelah diberikan kombinasi jus tomat dan *virgin coconut oil* dengan nilai *p value* = 0,017 ($\alpha < 0,05$).

Pemberian kombinasi jus tomat dan *virgin coconut oil* berpengaruh secara signifikan terhadap kadar kolesterol total responden. Kandungan asam lemak rantai sedang pada minyak kelapa dapat menyebabkan peningkatan kelarutan karotenoid pada tomat. Likopen yang merupakan karotenoid utama pada tomat dapat mencegah aktifitas dari enzim *3-hydroxy-3-methylglutaryl-CoA reductase (HMGCoA reduktase)* yang merupakan enzim kunci pada sintesis kolesterol sehingga sintesis kolesterol terhambat.

Kata kunci : Kolesterol Total, Jus Tomat, Virgin coconut oil

THE EFFECT OF A COMBINATION OF TOMATO JUICE AND VIRGIN COCONUT OIL ON TOTAL CHOLESTEROL LEVELS IN POSBINDU BLABAK VILLAGE

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ABSTRACT

High cholesterol can harm the body if it is present in large amounts in the blood, causing deposits to form on the walls of blood vessels and narrowing which is called atherosclerosis. The aim of this research was to determine the effect of giving tomato juice and virgin coconut oil on changes in total cholesterol levels in Posbindu, Blabak Village.

This research was pre-experimental with a One Group Pretest-Posttest design. This research was conducted at Posbindu, Blabak Village, using random sampling techniques and a research sample size of 20 respondents. The measuring tool used is a lipid profile examination, the data is tested using Paired sample T-Test.

The results of the study showed that the average change in the initial and final total cholesterol levels of respondents who were given a combination of tomato juice and virgin coconut oil for 14 days with a dose of 230 ml was 26.10 mg/dl. The statistical test results showed that there was a difference in the initial and final total cholesterol levels of respondents after being given a combination of tomato juice and virgin coconut oil with a p value = 0.017 ($\alpha < 0.05$).

Giving a combination of tomato juice and virgin coconut oil had a significant effect on respondents' total cholesterol levels. The medium chain fatty acid content in coconut oil can cause an increase in the solubility of carotenoids in tomatoes. Lycopene, which is the main carotenoid in tomatoes, can prevent the activity of the enzyme 3-hydroxy-3-methylglutaryl-CoA reductase (HMGCoA reductase), which is a key enzyme in cholesterol synthesis, so that cholesterol synthesis is hampered.

Keywords: Total Cholesterol, Tomato Juice, Virgin coconut oil