

"Differences in LDL Cholesterol Levels Before and After Giving Avocado Juice (*Persea americana*) with Starfruit Essence (*Averrhoa carambola*) in Patients with Hypercholesterolemia"

Fahriza Amalia S

Clinical Nutrition Program
Department of Health

ABSTRACT

Hypercholesterolemia is an abnormality in lipid levels which can be form of an increase in LDL and a decrease in HDL. Avocado juice with starfruit essence contains vitamin C which functions as an antioxidant through electron donation to free radicals so that it becomes stable. Vitamin C also plays a role in reshaping vitamin E so that it can stop the lipid peroxidation chain reaction in the body by donating hydrogen atoms to lipid radicals so that the oxidation reaction stops and protects body fat. The purpose of this study was to determine differences in LDL cholesterol levels before and after giving avocado juice (*Persea americana*) with starfruit essence (*Averrhoa carambola*) to employees which is suffering from hypercholesterolemia in the State Polytechnic of Jember. This study uses a Quasy Experiment design with Pretest-Posttest with Control Group design. The sampling technique is pusposive sampling with a total sample of 24 respondents divided into 2 groups: 12 control groups and 12 treatment groups by consuming 357 ml avocado juice with starfruit essence made from 60 grams of avocado and 120 grams of starfruit and consumed once a day in 7 days. The results of this study were analyzed using the Independent t-test and Paired t-test. There was a difference ($p = 0.027 < 0.05$) before and after the intervention in the treatment group after consuming avocado juice with starfruit essence. There was no effect ($p = 0.785 < 0.05$) consumption of avocado juice with starfruit essence combination on reducing LDL levels in patients with hypercholesterolemia.

Keywords: *Avocado, Hypercholesterolemia, LDL, Starfruit.*