

ABSTRACT

THE EFFECT OF VIRGIN OLIVE OIL AND HONEY ON TRIGLYCERIDE LEVELS IN MALE *Sprague dawley* RATS (*Rattus norvegicus*) INDUCED BY HIGH FAT DIET

By

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High fat diet and obesity are the predisposing factors of dyslipidemia. High cholesterol levels in the blood or which is called by hypercholesterolemia is main risk factor of coronary heart disease. One of the treatment of hypercholesterolemia is replace dieting from saturated fatty acid to monounsaturated fatty acid (MUFAs) by consuming olive oil that contains MUFAs and consuming food rich in nutrients such as honey that contains flavanoid. Flavanoid and MUFAs were proven to lower the triglyceride levels of blood.

The purpose of this research is to find out the effect of combination of virgin olive oil and honey on blood total triglyceride levels. This was an experimental research with Post Test Only Control Group Design, used 25 male sprague dawley rats, 150-250 gram in 4-5 months, simply randomize into 5 groups. Each group was adapted and had standard diet in a week. Group K(-) was given standard diet, group K(+) was given brain cow suspension (3ml), group P1 was given brain cow suspension (3 ml) and virgin olive oil (1 ml), group P2 was given brain cow suspension (3 ml) and honey (1.35 ml), group P3 given brain cow suspension (3 ml) and combination of honey (1.35 ml) + virgin olive oil (1 ml).

From the research, the average of triglyceride levels in group K(-) ($41,23 \pm 7,61$); group K(+) ($60,20 \pm 2,56$); group P1 ($44,95 \pm 2,99$); group P2 ($59,26 \pm 9,28$) group P3 ($41,01 \pm 9,95$). In conclusion, there is the effect of granting virgin olive oil and honey on triglyceride levels in male sprague dawley rats.

Key words : high fat diet, honey, triglyceride, virgin olive oil.