Effect of VCO to leucocyte differential count, glucose levels and blood creatinine of hyperglycemic and ovalbumin sensitized Mus musculus Balb/c

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Abstrak

Handajani NS, Dharmawan R. 2009. Effect of VCO to leucocyte differential count, glucose levels and blood creatinine of
hyperglycemic and ovalbumin sensitized Mus musculus Balb/c. Nusantara Bioscience 1: 1-8. Chemical medicines and insulin can
decrease blood glucose level in hyperglycemic patients with a macro vascular side effect. Diabetes and allergy incidences are influenced
by quality and quantity of leucocytes. Lauric acid within VCO reports decreased blood glucose level of diabetes and some allergy
incidents. The purpose of the study is to know the effect of VCO on blood glucose level, differential leucocytes count and blood
creatinine level on hyperglycemic and normoglycemic ovalbumin-sensitized mice. Forty-five (45) male (mice) of Mus musculus Balb/c
with an average weight of 35 g are divided into nine groups with five repetitions; those are four non-alloxan groups and five alloxan
induced hyperglycemic groups. On 22nd day to 36th day, they are sensitized to ovalbumin as an allergen. A blood sample was obtained
by orbital vena using heparin as anticoagulant in order measuring blood glucose level by GOD method to 6 times, on 1st, 4th, 18th, 22nd
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32nd and 37th days, then are tested by ANOVA followed by DMRT 0.05. On 37th day, differential leucocytes are determined, blood level
are counted, and then compared to normal value. The results of this study were that within differential leucocytes count of
hyperglycemic mice, neutrophil percentage were much lower than the normal value (3.22%), and lymphocyte percentage were much
higher than the normal value (94.54%). Consumed 0.003 mL/35 g VCO more 18 days decreased blood glucose level on hyperglycemic
mice, decreased basophil percentage of ovalbumin-sensitized mice, normalized neutrophil percentage no increased creatinine blood
level.