

ABSTRACT

DECREASING OF CHOLESTEROL LEVELS IN RABBIT (*Oryctolagus cuniculus*) ON ADMINISTRATION OF GLUCOMANNAN STANDARDIZED KONJAC POWDER (*Amorphophallus konjac*)

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Konjac plant (*Amorphophallus konjac*) is one of the tubers that contains water-soluble polysaccharide fibers (Glucomannan). Glucomannan has a chemical structure consisting of D-mannose and D-glucose which are connected by glycosidic β -1.4 bonds which cannot be hydrolyzed by the amylase enzyme which has an α bond and has an acetyl group which will form a gel in the stomach so that it inhibits gastric emptying. Stunted gastric emptying will have an impact on decreasing post prandial insulin concentration which will suppress cholesterol synthesis, so that cholesterol levels will decrease. Glucomannan content in konjac plant is 61.24%. This study aims to determine the effect of standardized glucomannan konjac powder on reducing cholesterol levels in rabbits (*Oryctolagus cuniculus*). The criteria for rabbit used were male *New Zealand White*, weight of 1,5-3 kg. To increase cholesterol levels rabbits were given an induction of a high cholesterol diet and PTU 0.005%. This study consisted of 5 groups are negative control (CMC-Na 03%), positive control (Simvastatin 0.23 mg/kgBW white rabbit), konjac dosage I, II, and III (31.5 mg/kgBW; 61.1 mg/kgBW; 92.7 mg/kgBW, respectively). The treatment of each group was given every day for 27 days. Cholesterol level measurements were carried out on days 0, 3, 7, 10, 13, 20, 27 and weighing was carried out every day for dosage adjustments to be given. The results was analyzed by One Way ANOVA with significant value of 5%. The results showed that the best dosage in reducing cholesterol levels was konjac dosage III 92.7 mg/kg body weight.

Keyword: Hypercholesterolemia, cholesterol level, *Amorphophallus konjac*, glucomannan, rabbit