

ABSTRACT

Determination of Blood Glucose Level on Administration of Glucomannan Standardized *Porang* (*Amorphophallus onchophyllus*) Powder and *Konjak* (*Amorphophallus konjac*) Powder to White Rabbits (*Oryctolagus cuniculus*)

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Porang powder (*Amorphophallus onchophyllus*) and konjak powder (*Amorphophallus konjac*) both contain glucomannan which can lower blood sugar level. Glucomannan level in porang powder was $52,33 \pm 0,74\%$ (w/w) and in konjak powder was $61,24 \pm 0,61\%$ (w/w). This study was conducted to determine the effect of decreased blood sugar levels on administration of glucomannan standardized *porang* powder and *konjak* powder.

The samples in the study were eight groups of male *New Zealand White* type rabbits (*Oryctolagus cuniculus*) weighing 1,7-2,8 kg induced by alloxan monohydrate (50 mg/kg rabbit body weight) with four replications. The treatment groups included negative control group (CMC-Na 0,3%), positive control group (glibenclamide 0,2333 mg/kg rabbit body weight), glucomannan standardized porang powder group I, II, III; and glucomannan standardized konjak powder group I, II, III with dose of 31,5067; 61,1600; and 92,6667 mg/kg rabbit body weight, respectively. The treatment was performed daily for 21 days with blood glucose measurements on day 0, 3, 4, 7, 9, 15, and 21. The body weighing on the rabbit was performed every day. The results were analyzed by *One Way Anova* with a significant value of 5%.

The result showed that the most effective dose of glucomannan standardized konjak powder to lower blood glucose level was 92,6667 mg/kg rabbit body weight.

Keywords: diabetes mellitus, glucose level, glucomannan, *Amorphophallus onchophyllus*, *Amorphophallus konjac*, alloxan monohydrate, rabbit.