ABSTRACT

Antidiabetic Activity of Dry Extract of *Orthosiphon stamineus* Benth. Leaves and *Allium sativum* L. Bulbs Combination in Alloxan Induced Diabetic Mice

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Diabetes mellitus is a group of metabolic disorder characterized by hyperglicemia and alteration in the carbohydrate, fat and protein metabolism associated with absolute or relatives deficiencies in insulin secretion or its action. The present studies was carried out to evaluate combination of dry extract from *Orthosiphon stamineus* Benth. Leaves and *Allium sativum* L. Bulbs for antidiabetic activity in alloxan induced diabetic mice.

Combination of dry extract *Orthosiphon stamineus* Benth. Leaves and *Allium sativum* L. Bulbs with ratios 1:1, 1:2 and 2:1 (23.3 mg/20g BW mice), were administered orally to groups I, II, III respectively. The standardized drug glibenclamide (0.013 mg/20g BW mice) and CMC-Na also administered orally to mice as positive and negative control groups respectively.

After repeated daily oral administrations of the extract (23.3 mg/20g BW mice) for seven days, the extract significantly reduced blood glucose level in diabetic mice from days 5 compared to negative control group. The combination of dry extract with ratio 1:1 showed the biggest reduction in blood glucose level (246.4 mg/dL) with percentage 51.68%. The combination with ratio 1:2 and 2:1 also have significant blood glucose level (201.8 mg/dL) with percentage 50.73% and (189.8 mg/dL) with percentage 44.16%, while the combination were compared with standard drug glibenclamide (0.013 mg/20g BW mice) have no significant differences.

Keywords: *Orthosiphon stamineus* Benth. Leaves, *Allium sativum* L. Bulbs, antidiabetic activity, dry extract