

P14 EFFECTS OF *ORTHOSIPHON GLANDIFLORUS* WATER EXTRACT ON CLINICAL BLOOD CHEMISTRY IN RATS

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Orthosiphon glandiflorus Bold. is commonly called in Thai as “Yaa nuat maeo”. *O. grandiflorus* has been used traditionally as a remedy used of diuretic and treatment of urinary stone disease. This study examined subacute effects of *O. grandiflorus* water extract on clinical blood chemistry and hematology were investigated in male Wistar rats. Thirty rats were randomly divided into three treatment groups, ten in each group. Rats in the first group were given distilled water 1 ml/kg/day serving as a control group. The other two groups of rats were given *O. grandiflorus* water extract at dosages of 0.96 and 4.80 g/kg/day. Each group were administered orally for 30 consecutive days. During the treatment period, body weight was recorded every week. At the end of the treatment, rats were anesthetized. Blood samples were collected by heart puncture and serum samples were prepared for measuring hematology and clinical blood chemistry, respectively. The results showed that body weight gain of rats given *O. grandiflorus* water extract at dose of 4.80 g/kg/day was significantly lower than those in the control group. There was no significant difference of clinical blood chemistry and hematology such as hematocrit, hemoglobin, platelet count, white blood cell count, red blood cell count, red blood cell indices (mean corpuscular volume, mean corpuscular hemoglobin and mean corpuscular hemoglobin concentration), red blood cell morphology, alanine aminotransferase, aspartate aminotransferase, alkaline phosphatase, total bilirubin, direct bilirubin, serum creatinine, total cholesterol, triglyceride, low density lipoprotein-cholesterol, high density lipoprotein-cholesterol, glucose, uric acid and electrolytes (such as sodium, chloride and calcium).

O. grandiflorus water extract at the dose of 4.80 g/kg/day caused a significant increase of blood urea nitrogen and potassium. In addition, a significant increase of polymorphonuclear but decrease of lymphocyte were found in rats given *O. grandiflorus* water extract at

4.80 g/kg/day as compared to the control rats. This results illustrated that *O. grandiflorus* water extract did not effect on liver as well as lipid and carbohydrate metabolism while

O. grandiflorus water extract at high dose may be effect on kidney. Thus, histopathological examination of *O. grandiflorus* water extract on kidney were suggested.

Key word: *Orthosiphon glandiflorus* and clinical blood chemistry