

**P7 EFFECTS OF *PUERARIA MIRIFICA* ON BLOOD CLINICAL BIOCHEMISTRY PARAMETERS IN NORMAL AND HIGH CHOLESTEROL DIET - FED RATS**

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**ABSTRACT**

*Pueraria mirifica* Airy Shaw and Suvatabandhu, known locally as Kwao Keur, is considered to be a rejuvenating folk medicine. In this study, we investigated the effects of *P.mirifica* on blood clinical biochemistry parameters in the male Wistar rats. Rats were randomly divided into four treatment groups as following: normal diet-fed group; high cholesterol diet-fed group; normal diet-fed supplemented with *P.mirifica* group; high cholesterol diet-fed supplemented with *P.mirifica* group. Each group consisted of 10 rats. *P.mirifica* was administered orally at a dosage of 100 mg/kg/day for 90 consecutive days. At the end of the treatment, animals were sacrificed and blood samples were collected by heart puncture. Serum was determined for clinical biochemistry parameters. The results showed that body weights of rats either fed with normal diet or high cholesterol diet along with *P.mirifica* administration were significantly lower than their corresponding control groups. There were no significant difference in the following blood clinical biochemistry parameters: hemoglobin, hematocrit, WBC count, percent differential WBC, platelet count, RBC morphology, glucose, SGOT, SGPT, ALP, total bilirubin, direct bilirubin, BUN and SCr in all experimental groups. *P.mirifica* significantly decreased serum cholesterol in either normal diet-fed or high cholesterol diet-fed rats, whereas significantly increased serum triglyceride in normal diet-fed rats but trended to decrease this parameter in high cholesterol diet-fed rats. Serum LDL and HDL of either normal diet or high cholesterol diet-fed rats were significantly decreased by supplementation with *P.mirifica*. Interestingly, the improvement in the LDL/HDL ratio which is a predictor of vascular risk was observed in the hypercholesterolemic rats supplemented with *P.mirifica*. Although, *P.mirifica* demonstrated a benefit on lipid profile and did not show any toxic effects on blood, liver and kidney system in this study. An increment of serum triglyceride in normal rat receiving *P.mirifica*, however, is not favorable. Therefore, the study of its effects at various dose and long term uses including mechanism of effects should be further investigated.

**Key words :** *Pueraria mirifica*, blood clinical biochemistry, cholesterol-lowering effect, LDL/HDL ratio, toxicity