

Pre-clinical Safety and Hypoglycaemic Activity of Ethanolic Extract of *Andrographis paniculata* Nees.

Aung Kyaw Kyaw, Tin TinThein, Khin Phyu Phyu, Hein Myo Htet, Khin Moe Aung,
Saw Myat Thwe and Zaw Win Tun

Department of Medical Research (Upper Myanmar)

Myanmar health Research Congress (2008), Page 37

Abstract

Traditional herbal medicines are widely used in treatment of many common diseases. For the development of a new drug, preclinical studies are essential for the safety and tolerability. The purposes of this laboratory based experimental study were to determine the toxicity and the lethality and to prove the hypoglycaemic activity of the ethanolic extract of *Andrographis paniculata*. Acute toxicity was done on three test groups and one control group containing seven mice in each group. All test groups were given a single oral administration of 400mg/kg, 500mg/kg and 600mg/kg body weight of extract, respectively. Control group was given the aqueous solution (4ml/kg). All were active, alive and weight gain was noted during the seven-days study period. Sub-acute toxicity was done on 21 rats, equally divided into three groups containing seven rats in each group. Two tests groups were given 300mg/kg and 150mg/kg body weight of extract and control was given aqueous solution with the dosage of 4ml/kg body weight for 28 consecutive days. Hematological, biochemical and histopathological findings in all groups revealed no toxic changes ($p < 0.05$). Acute hypoglycemic activity was evaluated on two test groups (300mg/kg and 400mg/kg doses) compared with Glibenclamide (0.5mg/kg) treated positive control group and aqueous vehicle treated negative control group. A significant acute hypoglycemic activity was noted on both test groups ($p > 0.05$). Therefore this study gave evidence-based scientific support for the safety and hypoglycaemic activity of *Andrographis paniculata* Nees.



