P 31 Acute and subchronic toxicity of antihyperglycaemic leaf extractof *Cocciniagrandis*

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Medicinal plants are of great concern as a re-emerging health aid globally. The *in vivo* acute antihyperglycaemic effect of aqueous leaf extract of *Cocciniagrandis(*Ivy gourd,Cucurbitacae) has been scientifically proven by our group but safety data of the aqueous leaf extract of *C. grandis were* limited. Aim of this study was to investigate acute and subchronic toxicological effects of an aqueous extract of *C. grandis* on biochemical, haematological and histopathological parameters in male Wistar rats. An aqueous extract of *C. grandisrwas* administered orally at graded doses (0.25-2.00 g/kg) to Wistar rats (n=6 in each group) and the general behavior of the animals was observed for three days in the acute toxicity test. Subchronic toxicity was evaluated by daily administration of the extract at 0.75 g/kg (optimum effective antihyperglycaemic dose in diabetic rats) orally to Wistar rats (n=6 in each group) for 28 days. Signs of toxicity, body weight, consumption of food and water were monitored. The effects of the extract on biochemical (including lipid profile, activities of liver enzymes) and haematological parameters (full blood count) were also assessed on day 28. Further, histopathological effects were assessed in heart, lung, small intestine, liver, kidney, spleen and pancreas. Results of test rats were compared with those of untreated Wistar rats. All animals were physically active and no death was observed up to the dose of 2.00 g/kg in the acute toxicity study. The extract neither produced significant changes in any of the parameters ($p < 0.05$). No treatment related cellular changes were observed in the vital organs of *C. grandis* treated rats on light microscopic examination. The aqueous extract of *C. grandis* is safe in healthy rats up to a dose of 2.00 g/kg. Further the extract at a dose of 0.75 g/kg was toxicologically safe and merit further investigations.

Keywords*:Coccinia grandis,* Wistar rats, toxicological assessment, antidiabetic agent