

Preliminary toxicological evaluations of Polypeptide-K isolated from *Momordica Charantia* in laboratory rats.

ABSTRACT

This study examined the toxicological effects and safety of polypeptide k isolated from the seeds of *Momordica charantia* in laboratory rats. 30 male Sprague Dawley rats (12 weeks old, bodyweight 180-200 g) were randomly divided into 3 groups (1000 mg/kg, 500 mg and 0 mg/kg). Rats were acclimatized to laboratory conditions for 7 days and at day 8 rats were dosed orally with polypeptide k (in 2% DMSO/normal saline) and the controls received the dosed vehicle only. Rats were then observed for 72 hours before sacrificed. Rats were anaesthetized by pentobarbital (50 mg/kg ip) and 2-3.0 mL of blood was taken by cardiac puncture and rats were scarified by anaesthetic overdose. Immediately, organs (heart, lungs, liver, kidneys) were weigh and taken for histology. Organ sections were then evaluated by a histopathologist. Serum samples were assayed for liver functions (ALT and γ -GT) and kidney functions (BUN and creatinine). All rats showed normal behavior after the dosing and no statistical changes were observed in al blood parameters and organ weight. Histological examinations revealed normal organ structures. In conclusion, dosing of rats up to 1000 mg/kg did not have any effects on the rat behavior, liver or kidney functions nor histology of the selected organs.

Keyword: *Momordica charantia*; Toxicity; PPK; Rats.