A-29: Oral hypoglycaemic activity related fractionation of *Momordica charantia*

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The oral hypoglycaemic activity of fruit juice of *Momordica charantia*, a common vegetable in Sri Lanka has been observed in laboratory animals and in maturity onset diabetics. Eventhough the oral hypoglycaemic activity of *M.charantia* is well established, the active principle(s) have not been isolated and characterized. In order to identify the nature of the active principle(s), oral hypoglycaemic activity of different solvent extracted fractions of *M.charantia* were examined in male Sprague-Dawley rats.

Dried powder of *Momordica charantia* fruits was extracted with petroleum ether and methanol. The concentrated methanol extract, was extracted with ether and the ether soluble fraction was further extracted with water. The ether insoluble fraction was extracted with ethyl acetate. The ethyl acetate insoluble fraction was dissolved in 10% methanol/benzene and further fractionated using column chromatography. Fractionation using column chromatography resulted in several fractions (MB_1, MB_2, MB_3, MB_4, MB_5 and MB_6) soluble in 10% methanol/benzene. Ether, ethyl acetate extracts,aqueous extract of ether soluble fraction, 10% methanol/benzene insoluble fraction and 10% methanol/benzene soluble fractions were evaluated for their oral hypoglycaemic activity using normal healthy Sprague-Dawley rats as the animal model.

Ether extract, MB_2, MB_3, and MB_4 fractions significantly ($p < 0.01$-0.001) improved the ability to tolerate an oral glucose load when compared to the control group. Aqueous extract of ether soluble fraction,

ethyl acetate extract, 10% methanol/benzene insoluble, MB_1, MB_5 and MB_6 fractions failed to improve the ability to tolerate an oral glucose load when compared to the control group.

The above preliminary investigation suggests that *M.charantia* may have more than one compound with oral hypoglycaemic activity.

A-30: Breeding preference of *Anopheles culicifacies* in Galketiyagama area in Kurunegala District