A-04

EFFECT OF *MOMORDICA CHARANTIA* ON GLUCOSE ABSORPTION FROM THE GASTROINTESTINAL TRACT

S. Jeevathayaparan*, Kamani H. Tennekoon**,
and Eric.H. Karunanayake*
*Depts. of Biochemistry & **Physiology,
Faculty of Medicine, Colombo.

Oral hypoglycaemic activity of *Momordica Charantia* is now well documented. The present investigation was undertaken to study the effect of fruit juice of *M.Charantia* on gastrointestinal glucose absorption, using male Sprague-Dawley rats (200 ± 25g body wt.) as the animal model.

Animals fasted overnight were administered fruit juice of *M.Charantia* (n = 6) or distilled water (n = 6, control group) at a dose of 1 ml/100g body wt., 30 minutes prior to an oral glucose load (50% w/v). One hour after the glucose load blood glucose concentration and the amount of glucose remaining in the gastrointestinal tract were estimated.

Percentage glucose absorption from the gastrointestinal tract was calculated from the difference between the amount of glucose given orally and the amount of glucose remaining in the gastrointestinal tract at 1 hour after the oral load.

The percentage increase in blood glucose concentration at 1 hour after the oral glucose load was significantly lower ($p<0.02$) in the treated group (55%) than in the control group (96.89%).

The percentage glucose absorption from the gastrointestinal tract was significantly lower ($p<0.001$) in the treated group (48.76%) than in the control group (69.97%).

Thus the oral hypoglycaemic activity of *M.Charantia* may be partly due to its ability to reduce intestinal absorption of glucose.