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## **Hypoglycaemic effect of the single and multiple doses of the water extract of dried flowers of *Aegle marmelos* (Bael fruit) in healthy Wistar rats**

*Aegle marmelos* (AM) has been used in traditional medicine in Asian countries to treat many disorders. The water extract of the dried flowers is a very popular drink in Sri Lanka. Due to paucity of studies on flower extract, the present study was designed to evaluate the oral hypoglycaemic effect of the water extract of dried flowers of *Aegle marmelos* (WEAM) in healthy Wistar rats. To evaluate the oral hypoglycaemic effect of a single dose of the WEAM (200 mg/kg) healthy, male Wistar rats were divided into Test and Control (n = 6) groups. Following an overnight fast the Test and Control groups received the WEAM and distilled water respectively. A glucose load (3 g/kg) was given half an hour later. Blood was drawn after 2 hours and the serum glucose levels were measured. In evaluation of multiple doses, the Test and Control groups received a single dose (500 mg/kg) of WEAM and distilled water continuously for 7 days. On day 8, fasting and post glucose load serum glucose levels were measured. The single dose of WEAM showed a statistically significant ( $p = 0.003$ ) oral hypoglycaemic activity in healthy rats. The mean serum glucose level of the Test group was  $7.70 \pm 0.2$  mmol/L, while it was  $9.00 \pm 0.1$  mmol/L in the Control group. On day 8, fasting serum glucose levels of the Test and Control groups were  $4.21 \pm 0.2$  mmol/L and  $6.15 \pm 0.5$  mmol/L respectively while the post glucose load serum glucose levels were  $5.56 \pm 0.4$  mmol/L and  $8.70 \pm 0.2$  mmol/L respectively. There was a 38.5 % reduction in serum glucose level of the Test group when compared with the Control ( $p = 0.003$ ). Single and multiple doses of water extract of dried flowers of *Aegle marmelos* exert a significant oral hypoglycaemic effect in healthy Wistar rats.