

A-22 Oral hypoglycaemic activity of "Dilini madu meha suwaya" in rats

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Diabetes mellitus is an endocrine disease characterized by hyperglycaemia due to an absolute or relative lack of insulin and/or insulin resistance. Common forms of treatment include use of western medicines, as well as indigenous ayurvedic preparations. Literature available on the efficacy of ayurvedic preparations for controlling the level of blood sugar is extremely limited.

The objective of this investigation was to analyse the effect of 'Dilini madu meha suwaya', a commercially available ayurvedic syrup of unknown efficacy, on the fasting blood sugar levels of rats.

Healthy adult male Sprague-Dawley rats, fasted overnight for 16 h, were randomly divided into 2 groups; the control and the treated. Blood samples were withdrawn from both groups from the cut tail vein, to determine the fasting blood sugar level. The control group was then given 0.8 ml of distilled water (via stomach tube) and the treated group received 0.8 ml of 'Dilini madu meha suwaya'. Blood samples were withdrawn at hourly intervals, for 4h from both groups. Serum was separated within half an hour, and stored at 4°C. The serum glucose level was determined (Table 1) within 48h by the glucose hexokinase / UV procedure by using a commercially available kit.

Table 1: Serum glucose levels (mg/dl) in rats (mean ± SD)#

	<i>Fasting</i>	<i>1st Hour</i>	<i>2nd Hour</i>	<i>3rd Hour</i>	<i>4th Hour</i>
Control Group	94.9±25.0	99.1±14.7	79.7±24.8	110.9±12.1	96.0±22.2
Treated Group	96.4±26.2	92.8±15.6*	73.7±31.5*	84.6±15.1*	85.3±22.7*

n = 10 for each group

* significant when compared with control, p<0.01

'Dilini madu meha suwaya' was found to decrease the fasting blood glucose levels of rats in a statistically significant manner, during the 4h test period.