

## A 010

### Effect of *Ipomoea aquatica* on key hepatic enzymes and uric acid levels of healthy,

*Ipomoea aquatica* Forsk. (Convolvulaceae) is a dark green leaf vegetable, which has been in human consumption through the ages. A study was done to determine the long-term effects of the consumption of the fresh edible portion of *I. aquatica* on liver and kidney function in healthy, Wistar rats.

Twenty four Wistar rats, 6 weeks of age were randomly divided into Test and Control groups with 12 rats in each. The Control group was fed the standard diet and water *ad libitum* while the Test was given shredded *I. aquatica* at a dose of 4 g/kg daily in addition to above.

After 8 weeks, blood was drawn and serum was separated for the determination of uric acid  $\gamma$ -glutamyl transferase ( $\gamma$ -GT), alanine transaminase (ALT), aspartate transaminase (AST) and alkaline phosphates (ALP) using DMA and Human Diagnostics reagent kits. The results are shown in the following table. Data pairs were compared by Student's *t* test.

Parameter	Serum concentration –Mean $\pm$ SEM	
	Test	Control
Uric acid	2.8 $\pm$ 0.1 mg/ dL	2.9 $\pm$ 0.1 mg/ dL
$\gamma$ GT	4.0 $\pm$ 0.4 U/L	4.2 $\pm$ 0.4 U/L
ALT	46.4 $\pm$ 1.0 U/L	45.8 $\pm$ 1.8 U/L
AST	27.2 $\pm$ 1.4 U/L	29.9 $\pm$ 4.3 U/L
ALP	68.4 $\pm$ 7.0 U/L*	102.0 $\pm$ 11.0 U/L

\* significantly different from Control at  $p < 0.04$

results revealed that there were no significant differences between the serum concentrations of the parameters checked except in alkaline phosphatase which was significantly lower in the Test group ( $P < 0.04$ ). Compounds of *I. aquatica* may be involved in the metabolism of this enzyme by a mechanism which is yet to be studied. Since there is no significant difference between all the key hepatic enzymes as well uric acid levels in both groups it can be concluded that consumption of the fresh edible portion of *I. aquatica* has no adverse effects on the liver and kidney function of normal, healthy Wistar rats.