

## **Diuretic activity of roots from *Carica papaya* L. and *Ananas comosus* L.**

### **ABSTRACT**

Water extracts of *Carica papaya* and *Ananas comosus* extracts were administered orally at doses of 5 and 10 mg/kg to Sprague Dawley rats. Two other groups were given commercial diuretics, furosemide and hydrochlorothiazide at 10 mg/kg. Urine volume, urine pH, urine density and urine electrolytes were determined every hour for 4 hours. Blood was taken to determine the serum level of glucose, albumin, blood urea nitrogen (BUN) and creatinine. Both, *C. papaya* and *A. comosus* extracts exhibited moderate to potent diuretic activity. *C. papaya* extract increased the 4-hour urine volume when administered at both 5 and 10 mg/kg. *A. comosus* extracts increased urine volume only at 10 mg/kg dose. Na<sup>+</sup> and Cl<sup>-</sup> elimination was unchanged for the whole period of study. However, the 4-hour urinary excretions of K<sup>+</sup> were significantly increased for both plant extracts. Both plant extracts induced increment of serum BUN and creatinine level significantly when compared to controls ( $p < 0.05$ ) but these levels were still within the normal range. Blood glucose level and albumin were not significantly for both plant extract. In conclusion, both plants investigated had diuretic activity and roots of *C. papaya* activity were statistically similar potency to the activity of furosemide and hydrochlorothiazide. However, care must be taken when using these herbs as increased urinary K<sup>+</sup> being excreted and marginal increase of serum BUN and creatinine were detected.

**Keyword:** *Ananas comosus*; *Carica papaya*; Electrolytes; Word diuretic