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Evaluation of Diuretic Activity of Ethanolic Extract of Semecarpus Anacardium

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Abstract: *Ethnopharmacological relevance: India is home to a large population of Semicarpusanacardium, sometimes known as "Marketing Nut," a tropical flowering plant. Medicine often uses Semicarpus anacardium because of its immunomodulatory qualities. The plant's component has also been used in traditional medicine to treat diuretics.*
Aim of study: The aim of this work was to assess the diuretic capacity of ethanolic extracts of Semicarpus anacardium seed in normal rats following acute and sub-chronic oral administration, since the diuretic activity of these plant materials has not been explored in well controlled scientific investigations.
Materials and methods: For eight days, oral dosages of 150 and 300 mg/kg of ethanolic extracts from Semicarpus anacardium seeds were administered to male Wistar rats. Furosemide was used as a reference drug at a dose of 10 mg/kg. Urine output in the rats was tested many times after therapy. Numerous other parameters were evaluated as well, such as creatinine clearance, plasma electrolyte concentration, and urine electrolyte concentration, using flame spectrophotometry and the Jaffe alkaline picrate method.
Results: Following the administration of a single dosage of Semicarpus anacardium seed extracts, urine output increased significantly at all time periods. The biggest total volume of urine voided 24 hours after the dose was furosemide-treated urine, followed by plant extracts and the control group. Furosemide only increased Na+ levels while lowering K+ levels; yet, the increases in urine Na+ and K+ levels from both extracts were almost similar. Even though the compounds varied in the electrolyte excretion via urine, none of them altered the plasma Na+ and K+ levels.
Conclusion: The present study supports the traditional medicine's use of Semicarpus anacardium seeds for their diuretic qualities

Keywords: Semicarpus anacardium seed, Ethanolic extracts, Furosemide, Diuretic activity, Urine output, Plasma Na^+ and K^+ levels

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