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Diuretic properties of Orthosiphon stamineus Benth.

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Abstract

ETHNOPHARMACOLOGICAL RELEVANCE: *Orthosiphon stamineus* has been used in traditional medicine for centuries especially to treat diseases of the urinary system.

AIM OF THE STUDY: To investigate the diuretic activity, to elucidate its possible mechanism and to evaluate the renal effects of *Orthosiphon stamineus* extract.

MATERIALS AND METHODS: Water extracts were administered orally at doses of 5 and 10 mg/kg to Sprague-Dawley rats and the control groups were given commercial diuretic drugs either furosemide or hydrochlorothiazide at 10 mg/kg. Urine volume, urine pH, urine density and urine electrolytes were determined every hour for 4h. Blood was assayed for glucose, albumin, blood urea nitrogen (BUN) and creatinine.

RESULTS: *O. stamineus* extract exhibited dose-dependent diuretic activity. However, excretion of Na⁺ and Cl⁻ was not markedly elevated, but urinary excretion of K⁺ was significantly increased. *O. stamineus* extracts slightly increased the serum BUN, creatinine and blood glucose level. Although these levels were statistically significant when compared to control, these levels were still within normal range.

CONCLUSIONS: *O. stamineus* exhibited diuretic activity, but was less potent than furosemide and hydrochlorothiazide. Care should be taken when consuming this herb as slight increase of kidney function enzymes was recorded.

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Publication Types, MeSH Terms, Substances

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