

**“Evaluation of anti urolithiatic activity of *Withania somnifera* in ethylene glycol induced urolithiasis in Rats.”**

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**ABSTRACT**

**OBJECTIVE :** Evalution of Anti-Urolithiatic activity of *Withania somnifera* in ethylene glycol induced urolithiasis in rats.

**Abstract:** Ethylene glycol (0.75%) and Ammonium chloride(1%) in water was used to induce urinary calculi for 28 days.Five groups were taken and six animals were taken in each group. From 14<sup>th</sup> day test drug *Withania somnifera* was given at 200mg/kg and 500mg/kg along with standard drug cystone 750mg/kg and all the group was compared with the positive control group. After completion of treatment after 24 hrs urine was collected and blood was collected by retro-orbital puncture and kidney histopathology was done . calcium, oxalate,inorganic phosphate,magnesium were analysed in urine and creatinine , BUN, uric acid in serum and calcium, oxalate and phosphate in kidney homogenate.

**Results and Discussion:** Methanolic extract of *Withania somnifera* showed increase in urine volume and pH. All the treated groups showed decrease in calcium,oxalate, phosphate,creatinine,urea, and uric acid level in ethylene glycol induced lithiatic activity.

**Conclusion:** Methanolic extract of *Withania somnifera* showed significant anti-urolithiatic activity which is associated to its diuretic, anti-inflammatory and antioxidant property.

**Keywords:** urolithiasis, ethyleneglycol, ammonium chloride, *Withania somnifera*.