

**EFFECT OF ANGIOTENSIN RECEPTOR BLOCKER ON  
EXPERIMENTALLY INDUCED HYPERURECEMIA IN RAT**

Submitted by

**Patel DipalJitenkumar**

Guided by

**Dr.JagadishKakadiya**

Associate professor

Parul Institute of Pharmacy and Research

**ABSTRACT**

**OBJECTIVE:**Theobjectiveofthepresent studywastoevaluate the effect of angiotensin receptor blocker in experimentally induced hyperuricemia in rats.

**METHOD:** Animals weredivided intofourgroupsofeachsixanimals.Group-I served as normal control and received Regular food & drinking water with libitumorally. Group-II receivedpyrazinamide (300mg/kg)And 20% fructose solution orally for 25 days to induce hyperuricemia in rat.Group-IIIcombination of pyrazinamide (300mg/kg/. P. O)And 20% fructose solution along with losartan (50mg/kg/. P.O.) will be given for 20 days.Group-VI Standard: received combination of pyrazinamide (300mg/kg/. P. O) and 20% fructose solution along with febuxostat (60mg/kg) will be given for 20 day.

Attheendofthetreatmentperiod,ratswereanaesthetizedwithanaestheticand blood was collected from the retro-orbital plexus for estimation of different biochemical parameters like, serum uric acid, serum creatinine, blood urea, urine uric acid and Histopathology of kidney.

**RESULT AND DISSCUSION:**Pyrazinamide(300mg/kg) and 20%fructose was shown increase in uric acid level in both Serum as well as in Urine. It increased level of Serum Creatinine, blood urea nitrogen.

Losartan(50mg/kg) decreased level of serum uric acid, serum creatinine, blood urea nitrogen, urine uric acid and histopathology of kidney.

**CONCLUSION:**It has been concluded that losartan shows uricosuric action in pyrazinamide and fructose induced hyperuricemia in rats. It act via inhibiting urate transporter 1 (URAT1).The angiotensin II receptor blocker losartan lowers serum concentration of urate in hypertensive subjects through a significant uricosuric action. Losartan will be useful for hypertensive patients who are also having high uric acid level.

**KEYWORDS:** Hyperuricemia, pyrazinamide, URAT1, febuxostat