

Changes in the pharmacokinetic of sildenafil citrate in rats with streptozotocin-induced diabetic nephropathy

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The present investigation deals with the change in the pharmacokinetic of Sildenafil citrate (SIL) in disease condition like diabetic nephropathy (DN). Diabetes was induced in rats by administering *Streptozotocin* i.e. STZ (60 mg/kg) saline solution. Assessment of diabetes was done by GOD-POD method and conformation of DN was done by assessing the level of Creatinine, Blood Urea Nitrogen (BUN), Albuminuria. After the conformation of DN single dose of drugs SIL (2.5 mg/kg, *p.o.*) were given orally and Pharmacokinetic Parameters like [AUC_{0-1} (ug.h/ml), $AUC_{0-\infty}$, C_{max} , T_{max} , Kel, Clast] were estimated in the plasma by the help of HPLC-UV. The study concluded that there was significant ($p < 0.01$) increase in the bioavailability of SIL in DN.

Keywords: Diabetic Nephropathy, *Streptozotocin*, Sildenafil citrate.

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