Antioxidant effect of Trolox in diabetic rat

The present study was undertaken to evaluate effect of trolox on antioxidant status in STZ induced diabetic rats. All animals were divided into four groups and diabetes was induced by STZ (45 mg/kg, i.p) in all groups. Animals received trolox 10 mg/kg and 20 mg/kg respectively for seven days. After 48 hrs of administration of STZ blood glucose levels was estimated. Animals having blood glucose levels more than 200 mg/dl were selected for study. On 8th day, blood was withdrawn by puncturing retro orbital sinus and centrifuged at 3000 rpm for 10 min to separate serum which was used for determination of antioxidant enzymes, lipid peroxidation (MDA) and uric acid level. Our present study revealed that antioxidant enzymes like SOD, CAT and peroxidase were reduced significantly in diabetic rats as compared to normal control rats. Lipid peroxidation and uric acid levels were significantly increased as compared to normal control animals. Administration of trolox (10 mg/kg and 20 mg/kg, i.p) for seven days could significantly elevated reduced activities of SOD, CAT and peroxidase and decreased elevated levels of MDA and uric acid. It is concluded that trolox can possess antioxidant activity.

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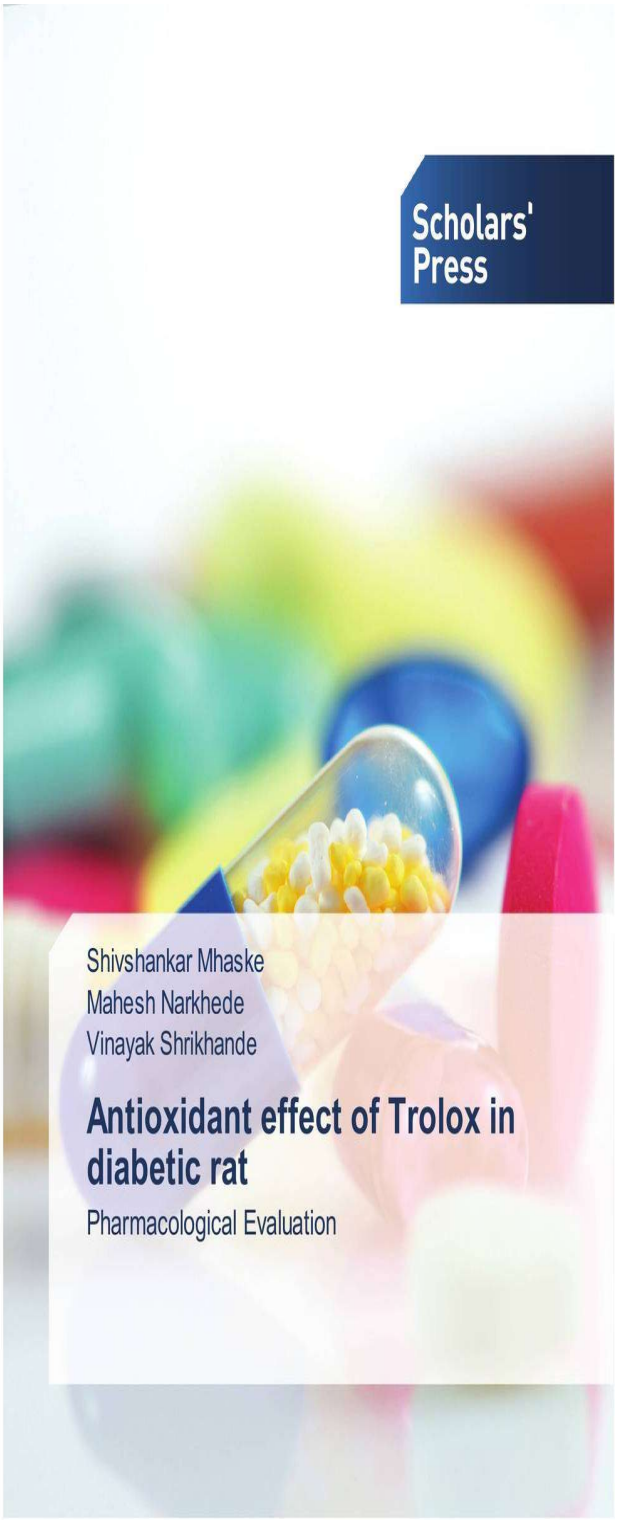

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Pharmacological Evaluation