SYNERGISTIC EFFECTS OF *Solanum trilobatum* and *Solanum melongena* EXTRACT AGAINST β-galactosamine INDUCED HEPATIC DAMAGE IN RATS.

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ABSTRACT

In this study, methanol extract of *Solanum trilobatum* and *Solanum melongena* has been evaluated for antioxidant activity and hepatoprotection against experimentally induced hepatic damage in Wistar albino rats. The methanol extract of *Solanum trilobatum* and *Solanum melongena* was evaluated (250 mg/kg body weight administered orally for 7 days by gastric intubation) for the hepatoprotective activity against β-galactosamine induced hepatic Damage in Wistar Albino rats. The Activities of marker enzymes such as aspartate tranaminase (AST), alanine transaminase (ALT), alkaline phosphatase (ALP), lactate dehydrogenase (LDH) and gamma glutamyl transferase (γ-GT) in serum and liver homogenate of control and experimental animals were studied. The status of antioxidants such as catalase (CAT), superoxide dismutase (SOD), reduced glutathione (GSH), glutathione peroxidase (GPx) and lipid peroxidation in the liver homogenate of control and experimental animals were also compared. Results of the study revealed the elevated levels of serum AST, ALT, ALP, LDH and γ-GT in β-galactosamine induced animals, which might be due to the damage liver tissue or changes in cell membrane permeability. Oral administration of the extract of ST and SM significantly (p<0.05) reduced the elevated levels of the above marker enzymes in serum. The enzymic and non enzymic antioxidants in liver were restored to normal values after the oral administration of the plants extract and suppressed the formation of the superoxide anion radical and reduced β-galactosamine induced lipid peroxidation. From the results, it can be inferred that the combined extract of *Solanum trilobatum* and *Solanum melongena* positively modulated the marker enzymes and antioxidant activity and the bioactive compounds derived from these plant can be supplemented with hepatoprotective medicines.

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