

Antioxidant effect of Aloe vera gel extract in streptozotocin-induced diabetes in rats.

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Abstract:

In the present study, an attempt has been made to evaluate the presence of antioxidant property in the alcoholic extract of Aloe vera leaf gel. Oral administration of Aloe vera gel extract at a concentration of 300 mg/kg to diabetic rats significantly decreased the levels of blood glucose, glycosylated hemoglobin and increased hemoglobin. The increased levels of lipid peroxidation and hydroperoxides in tissues of diabetic rats were reverted back to near normal levels after the treatment with gel extract. The extract treatment also resulted in a significant increase in reduced glutathione, superoxide dismutase, catalase, glutathione peroxidase and glutathione-S-transferase in the liver and kidney of diabetic rats. These results clearly show the antioxidant property of Aloe vera gel extract. The extract was also more effective than glibenclamide in restoring the values of these parameters.