
Our preliminary study shows that an oral administration of an aqueous extract of Casearia esculenta, an indigenous antidiabetic plant popularly used in South India for diabetes mellitus, lowers blood glucose level under normal and glucose load conditions, and in streptozotocin (STZ)-induced diabetes in rats. The study was further undertaken to evaluate the antioxidant potential of C. esculenta in STZ diabetic rats. Oral administration of C. esculenta root extract at doses of 200 and 300 mg/kg for 45 days resulted in significant reduction in plasma thiobarbituric acid reactive substances (TBARS), hydroperoxide and ceruloplasmin and a significant elevation in plasma reduced glutathione (GSH), ascorbic acid (vitamin C) and α-tocopherol (vitamin E). The study indicates that C. esculenta root extract at doses of 200 and 300 mg/kg restored all the antioxidant parameters to near normal value.

Key words: antioxidants, Casearia esculenta, diabetes mellitus, streptozotocin, TBARS

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