

EFFECT OF *CASEARIA ESCULENTA* ROOT EXTRACT ON BLOOD GLUCOSE AND PLASMA ANTIOXIDANT STATUS IN STREPTOZOTOCIN DIABETIC RATS

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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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