

Antidiabetic and antioxidant nature of *Pithocellobium dulce* fruits studied in STZ induced experimental diabetes in rats.

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From International Conference on Biosciences- Trends in Molecular Medicine.

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American J of Bio-pharm Biochem and Life Sci. 2012 March, Vol. 1 (Suppl 1): A27

ABSTRACT

Pithocellobium dulce (Roxb) Benth is a tropical tree distributed through out the tropics. The plant is known for its unique edible fruits. The fruits of *Pithocellobium dulce* are widely used in traditional medicine for various ailments including ear ache, leprosy, ulcer and other gastro intestinal disorders. The edible part of the fruits is reported to contain various biologically active ingredients of known pharmacological actions. The present study was aimed to evaluate the hypoglycemic and antioxidant potential of fruit extract in STZ induced experimental diabetic rats. Phytochemical analysis revealed the presence of alkaloids, flavonoids, carbohydrates, glycosides, saponins, phytosterols, triterpenoids, proteins and aminoacids. Oral administration of *Pithocellobium dulce* fruit extract (300 mg/kg body weight) for a period of 30 days significantly reduced the levels of blood glucose, glycosylated hemoglobin, urea, creatinine and improved the antioxidant status in the plasma of diabetic rats with a concomitant decrease in lipid peroxidative products. The observed antidiabetic and antioxidant activity of the extract might be due to the presence of biologically active phytoconstituents such as flavonoids and saponins in the edible part of the fruits.