

عنوان مقاله:

Hypoglycemic, hypolipidemic and hepato-protective effect of bee bread in streptozotocin-induced diabetic rats

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خلاصه مقاله:

Objective: This study aims to shed a new light on pharmacological effects of bee bread as a product of the hive through examination of the effect of itsethyl acetate extract on hyperglycemia, dyslipidemia, and liver dysfunction induced by streptozotocin. **Materials and Methods:** The bee bread ethyl acetate extract was analyzed for total phenolics, flavonoids, and the antioxidant activities using total antioxidant capacity, ۲, ۲'-diphenyl-۱-picrylhydrazyl (DPPH), ۲, ۲'-azino-bis (۳-ethylbenzothiazoline-۶-sulfonic acid (ABTS), and reducing power assays. In vivo study was carried out on thirty-six rats divided into control or diabetic rats, received daily for ۱۵ days distilled water (۱۰ ml/kg), or ethyl acetate extract of bee bread (۱۰۰ mg/kg), or glibenclamide (۲.۵ mg/kg). The protective effect of bee bread against metabolic changes induced by streptozotocin in Wistar rats, was evaluated by checking the blood glucose levels, lipid profile, atherogenic index, coronary risk index, cardiovascular risk index, body weight and hepatic enzyme markers in normal and diabetic rats. Glibenclamide was used as standard drug to compare the efficacy of bee bread. **Results:** The results indicate that bee bread ethyl acetate extract has a high content of phenolics and flavonoids and a strong antioxidant activity. Glycemia, lipid profile and hepatic enzymes were modified in diabetic rats. These modifications were ameliorated after the treatment with bee bread extract which was more potent than glibenclamide. **Conclusion:** In summary, ethyl acetate extract of bee bread possesses effective glycemia lowering effects and represents a natural source of new bioactive molecules for future therapy of hyperglycemia, hyperlipidemia and liver dysfunction.

کلمات کلیدی:

Diabetes, Bee bread, Hyperlipidemia, Liver

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