

## **Antidiabetic Activity of Cedrus deodara Aqueous Extract and Its Relationship with Its Antioxidant Properties**

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**Abstract :** The present study investigated the antidiabetic potential of Cedrus deodara heart wood aqueous extract and its relationship in alloxan-induced diabetic rats. Aqueous extract of Cedrus deodara was found to reduce blood sugar level in alloxan induced diabetic rats. Reduction in blood sugar could be seen from 5th day after continuous administration of the extract and on 21st day sugar levels were found to be reduced by 40.20%. Oxidative stress produced by alloxan was found to be significantly lowered by the administration of Cedrus deodara aqueous extract (500 mg/kg). This was evident from a significant decrease in lipid per oxidation level in liver induced by alloxan. The level of Glutathione, Catalase, Superoxide dismutase and Glutathione-S-Transferase in liver, kidney and pancreas tissue were found to be increased significantly after drug administration. The results obtained in the present study suggest that the Cedrus deodara aqueous extract effectively and significantly reduced the oxidative stress induced by alloxan and produced a reduction in blood sugar level.

**Keywords :** Cedrus deodara, heartwood, antioxidant, anti-diabetic, anti-inflammatory

**Conference Title :** ICABB 2014 : International Conference on Applied Biology and Biotechnology

**Conference Location :** Zurich, Switzerland

**Conference Dates :** January 14-15, 2014