

**Study of antihyperglycemic, antihyperlipidemic and antioxidant activities of tannins extracted from *Warionia saharae* Benth. & Coss****Mohamed Eddouks**

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**W***arionia saharae* Benth & Coss, a plant belonging to Asteraceae family, is used for its anti-diabetic properties in Morocco. The objective of this study was to evaluate the effect of tannins extracted from *Warionia saharae* (*W. saharae*) on blood glucose levels and lipid profile in normal and streptozotocin (STZ)-induced diabetic rats. Tannins (TE) were extracted from *W. saharae* using Soxhlet apparatus and different organic solvents. Single and once daily repeated oral administration of TE (10 mg/kg) for 15 days were used to evaluate the glucose and lipid lowering activity in normal and diabetic rats. Furthermore, glucose test tolerance, liver histopathological

examination and *in vitro* antioxidant activity of TE were carried out in this study. The results showed that TE was able to exert antihyperglycemic and lowering total cholesterol effects as well as improvement of the high density lipoprotein (HDL)-cholesterol serum level after 15 days of treatment. Furthermore, TE improved glucose tolerance, histopathological status of liver in diabetic rats and demonstrated interesting antioxidant activity. In conclusion, the present investigation revealed that TE possesses potent antidiabetic and antihyperlipidemic activities as claimed in different ethnopharmacological practices.

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