



Research article

***Tribulus terrestris* fruit extract improves antioxidant defense in female reproductive tract: A comprehensive study in diabetic rats**

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Key words: *Tribulus terrestris*, ethanolic fruit extract, antioxidant potential, female reproductive tract, diabetes.

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Abstract

Objectives: The role of reactive oxygen species (ROS) within female reproductive system is complex and oxidative stress can contribute to infertility, given the fact that diabetes mellitus strongly affects fallopian tubes, ovaries and uterus. *Tribulus terrestris* (family-Zygophyllaceae) is known for medicinal value and fruit is rich in saponins, flavonoids and antioxidants. In this study the antioxidant potential of *Tribulus terrestris* fruit (TTF) on diabetic female reproductive tract is assessed. **Material and methods:** Wistar strain, female rats were induced diabetes by STZ (45 mg/kgbw) and supplemented with graded doses of TTF ethanolic extract (50-250 mg/kgbw) for 30-days to measure the counter effects. Studies were directed to evaluate diabetes caused changes in blood glucose, body weight and antioxidant enzyme activities in female reproductive tract upon exposure of phytoextracts. **Results and Conclusions:** Normalcy in body weight and blood glucose levels was evident upon TTF supplementation on and beyond 19th-day of extract exposure and among supplemented doses 200 mg/kgbw found to be efficient to quench the free radicals and ameliorated the status of antioxidant enzymes viz., SOD, CAT, GPx, GST and GSH. TTF extract in 200 mg/kgbw dose improves endogenous antioxidant defense system, thereby recommended for therapeutic use as an alternative to current modalities for the management of diabetes.