

## Effect of Cistanche tinctoria Methanolic Extract on the Maternal-Fetal Outcome and Oxidative Stress Biomarkers of Streptozotocin-Induced Diabetic Rats

**Authors :** Amina Bouzitouna, Kheireddine Ouali, Sandra Amri, Houria Rahmoun, Mourad Bensouilah

**Abstract :** Aim of this study: To evaluate the effect of Cisthanche tinctoria treatment on maternal-fetal outcome and antioxidant systems of streptozotocin-induced diabetic rats. Materials and methods: Virgin female Wistar rats were injected with 50 mg/kg streptozotocin before mating. Oral administration of an methanolic extract of Cistanche tinctoria was given to non-diabetic and diabetic pregnant rats at doses of 200 mg/kg from 0 to 19th day of pregnancy. At day 20 of pregnancy the rats were killed and a maternal blood sample was collected for the determination Vitamin C (Vit C) and malonaldehyde (MDA). The gravid uterus was weighed with its contents and fetuses were analyzed. Results and conclusion: The data showed that the diabetic dams presented an increased glycemic level, resorption, placental weight, placental index, and fetal anomalies, and reduced VIT C and MDA determinations, live fetuses, maternal weight gain, gravid uterine weight, and fetal weight. It was also verified that Cisthanche tinctoria treatment had no hypoglycemic effect, did not improve maternal outcomes in diabetic rats, but it contributed to maintain GSH concentration similarly to non-diabetic groups, suggesting relation with the decreased incidence of visceral anomalies.

**Keywords :** cistanche tinctoria, diabetes, pregnancy, reproductive outcome, anomaly, orobanchacées

**Conference Title :** ICFSB 2014 : International Conference on Food Science and Biotechnology

**Conference Location :** Istanbul, Türkiye

**Conference Dates :** November 28-29, 2014