



Evaluation of Protective Role of a Hesperidin on Letrozole induced Polycystic Ovarian Syndrome (PCOS) in Female Rats

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Abstract : Objective: To evaluate protective effect of Hesperidin (bioflavonoid, found in citrus fruits, such as lemon and orange) on Letrozole induced PCOS in female adult wistar rats. **Methods:** For inducing PCOS, letrozole (1 mg/kg) was administered p.o. for 21 consecutive days, followed by 15-days Hesperidin treatment at the doses 50 mg/kg, 100 mg/kg, and 200 mg/kg, p.o. using 0.5 percent w/v CMC as a vehicle. **Results:** Letrozole caused abnormalities in the ovarian weight, body weight, serum sex steroid profile such as FSH, LH, Testosterone levels and glucose levels. Most of the parameters were restored to normal levels, along with reduction of cysts in the ovaries due to Hesperidin. **Conclusion:** In female wistar rats, Hesperidin had a positive impact on PCOS caused by Letrozole. It had an effect similar to Clomiphene citrate, the most commonly used treatment for induction of ovulation in PCOS.

Keywords : Letrozole, PCOS, Hesperidin, Cysts, Clomiphene citrate.

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