Effect of Date Palm Pollen Suspension on Ovarian Function and Fertility in Adult Female Rats Exposed to Lead Acetate.

SUMMARY

This study was carried out to investigate the effect of Date Palm Pollen suspension (DPP) \( (Phoenix dactylifera \, L) \) on ovarian function and fertility in adult female rats exposed to lead acetate, by studying the following parameters: ovarian weight to body weight ratio, blood serum hormones concentration \( (luteinizing \, hormone \, (LH), \, follicular \, stimulating \, hormone \, (FSH), \, estrogen \, and \, progesterone) \), numbers of follicles \( (primary, \, secondary, \, atretic \, \, and \, mature \, follicles) \), diameters of graffian follicles, histological study of ovary, reproductive indices \( (fertility \, index \, and \, pregnancy \, index) \) and numbers and weights of offspring \( (alive \, and \, dead) \).

Fourty adult female albino rats aged \( (12-14) \, weeks \) and weighted \( (250-300) \, gm \) were randomly divided into four equal groups \( 10/ \, group \) and were treated daily for \( (42) \, days \) as follows: First group was received 1 ml distal water orally once a day and considered as control group, \( (T1) \) group were received DPP 150 mg /kg group were received DPP 150 mg \( (T2) \) group were treated with lead acetate 10 mg/kg B.W.orally,
(T3) group were treated once daily by oral administration of lead acetate 10 mg/kg B.W and after (3) hours given DPP150 mg/kg B.W. Blood samples were collected at (0, 14, 28, 42) days of the experiment for measuring the concentration of (LH, FSH, estrogen and progesterone).

At the end of the experiment 5 animals from each group were sacrificed to measuring the ovarian weight, numbers of follicles, and diameter of graffian follicles and study the histological changes of ovary.

From the results obtained, it was concluded that it seems likely that dosage of rats with DPP 150 mg/kg B.W after 42 days of treatment caused improvement and enhancement to females rats reproductive function and fertility against lead acetate harmful effects.