THE EFFECT OF OLANZAPINE ON PITUITARY - GONAD AXIS AND SPERMATOGENESIS IN ADULT MALE RATS

Hypothesis / aims of study
Olanzapin is a specific inhibitor of reabsorption of serotonine and dopamine. In addition, it acts as an antagonist of serotonine and dopamine receptors. Since this medicine is used in the treatment of psychosis and schizophrenia, then side effects of this medicine at different endocrine axes are important.

Study design, materials and methods
In present research, 50 male Wistar rats were divided into 5 groups of 10, including control, Sham and experimental groups I, II and III which orally received 5, 10 and 20 mg/kg olanzapine solution for 28 days respectively. 24 hours after the last treatment, blood samples were taken from the heart, centrifuged and sera were evaluated for the concentration of LH, FSH, testosterone and prolactin via RIA method. In addition testes were removed, weighted, sliced and studied with serological methods.

Results
The result show that, there was a significant increase in the body weight group receiving 20 mg/kg olanzapine solution.

Interpretation of results
There were a significant increase in prolactin and asignificant decrease in testosterone group receiving 20 mg/kg olanzapine solution.

Concluding message
Probably present changes due to compounds in olanzapine solution that affect body weight and serum concentration of prolactin and testosterone hormone in groups receiving 20 mg/kg olanzapine solution.

Specify source of funding or grant
Islamic Azad University

Is this a clinical trial?
No

What were the subjects in the study?
NONE