SUMMARY

This study was carried out in order to investigate the effect thyroid hormone in testicular function of adult male rats. This was done by using oral propylthiouracil (PTU) 0.1% to induce hypothyroidism and thyroxin injection to induce hyperthyroidism in adult male rats and investigate its effect on spermatogenesis and male hormones levels in the blood. This study was carried out on seven groups of experimental rats namely control group, 3 groups received (PTU) 0.1% at interval period 2,4 and 8weeks and other 3 groups received thyroxin injection at dose 100μg/kg/d at interval periods 2,4, and 8 weeks.

Data included in this study are the testicular weight, total sperm count, sperm abnormalities, serum testosterone and T4 level.

The obtained results of this study could be summarized into the following main points.

Induced hypothyroidism causes 1) no significant changes in the testicular weight after 2,4,8 weeks compared with the control group. 2)significant decrease in sperm count after 2,4,8 weeks compared with the control group and this effect increase with time. 3) significant decrease in sperm motility after 4,8 weeks compared with the control group and become more at 8 weeks. 4) significant increase in sperm abnormalities after 8 weeks in the adult male rats compared with the control group. 5)significant decrease in serum testosterone level after 8 weeks.

Induced hyperthyroidism causes 1) no significant changes in the testicular weight after 2,4,8 weeks compared with the control group.

2)significant decrease in sperm count after 2,4,8 weeks compared with the control group and this effect was maximum at 4weeks of administration.

3) significant decrease in sperm motility after 2,4,8 weeks compared with the control group and not affected by the time. 4) significant increase in sperm abnormalities after 8 weeks in the adult male rats compared with the control group. 5)significant decrease in serum testosterone level after 8 weeks.

RECOMMENDATION

We recommend other studies for further investigations about the thyroid hormone relation to further sexual disorders in males especially in the human. other investigation recommended about the central role of thyroid hormone in LH and FSH.