



PharmTech

International Journal of PharmTech Research

CODEN (USA): IJPRIF, ISSN: 0974-4304, ISSN(Online): 2455-9563
Vol.14, No.02, pp 228-235, 2021

Histological Study of ovaries of female Golden hamster (*Mesocricetus auratus*) with induced thyroid gland disorders

Manar Mohammed Hasan AL-Murshidi

**Department of Biology, College of Science for Women, Babylon University, Babylon,
Iraq**

E-mail ID : manarbio2 @ gmail.com

Abstract: Ovaries are highly important exocrine and endocrine glands, which lead to the production of ovum and then continuity of species. Hypothyroidism and Hyperthyroidism are the most important and leading cause of infertility in females as it was the cause of ovarian dysfunction. Thirty adult female golden hamsters, weighing 160-180 gm., were included in the study. Animals were divided into three groups: Carbimazole (12 mg/kg body weight) induced hypothyroidism, eltroxin (100 µg/kg body weight) induced hyperthyroidism and control group. Histological results showed that ovaries of hypothyroid hamsters explained an increase in the thickness of tunica albuginea and atretic follicles with dilation in blood vessels; Whereas ovaries of hyperthyroid hamsters explained degeneration of the primary and secondary ovarian follicles with a vascular congestion. In conclusion, hypothyroidism can cause ovarian cysts, follicular atresia, interstitial cell proliferation and delay in the sexual maturation and development; While hyperthyroidism can lead to degenerative changes of hamster ovaries, a vascular congestion and a marked decrease in collagen fibers.

Key words : thyroid disorders, eltroxin, Carbimazole, Ovary histology, Hamster .

Manar Mohammed Hasan AL-Murshidi/International Journal of PharmTech Research, 2021,14(2): 228-235.

<http://dx.doi.org/10.20902/IJPTR.2021.140219>
