

A histological study of the impact of drug Methyl Prednisolone on the testis and male albino rats treated extract natural musk

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Abstract: Methyl Prednisolone is a steroid drug prevents leakage of materials? In the body that cause inflammation. This property is used to treat allergic disorders, skin diseases, ulcerative colitis, rheumatoid arthritis, lupus, psoriasis, or breathing disorders. In this study was to identify the side effects of the drug Methyl Prednisol one on the efficiency of the work of the test is and the formation of germ cell sand the production of sperm, also studied the effect of the extract musk animal to reduce these side effects updated for testicular tissue The results showed no change in the now.

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Keywords: Methyl Prednisolone, testicular, musk animal, sperm, germ cells

1. Introduction:

The natural musk natural source for the production of compounds highly effective and safe for the resistance of many diseases arising from microorganisms nurse and that affect humans, animals and plants, as demonstrated the effectiveness of natural musk against fungi for the first [1], and pointed to the possibility of using musk Animal liquid to treat some infections skin arising from the fungus *Trichophyton rubrum* Ksafah (tinea) that infect the armpit, chin, head, body and foot, as well as in eliminating the fungus *Aspergillus niger* causes of many diseases in the tissues of humans and animals, in addition to its use as an antibiotic for they east *Candida albicans*, which can be shown Kaavonhinsystemic blood, meningitis, and endocarditis of the heart lining [2], also proved that the extract of musk and Sidr his active role in the destruction of cancer cells to the injured lung cancer [3].

Methyl Prednisolone is used commonly in the treatment of arthritis, bronchitis or acute bronch it is due to various respiratory diseases and is also used for spinal cord injuries, it may be useful in the treatment of patients in cardiac arrest. [4] However, it has several side effects, including long-term use is associated with high blood sugar, and low resistance to infection, and swelling of the face, weight gain, congestive heart failure, and fluid and sodium retention and edema, hypertension, and increased intraocular pressure, glaucoma, and the fragility of bones and psychosis, particularly when used in high doses. [5] [6]

Materials and Methods

2. Materials

Extract musk Musk:

Has been the use of natural musk (musk animal) extracted from the navel-Ghazal in the form of powder, have been obtained from the shops Qurnashi Jeddah, Saudi Arabia, the chemical composition of Musk contains approximately 1.4% volatile oil with a black color to brown haunted, also contains hormones Astieruleh most important Mscoba are den as well as alkaloids and enzymes.

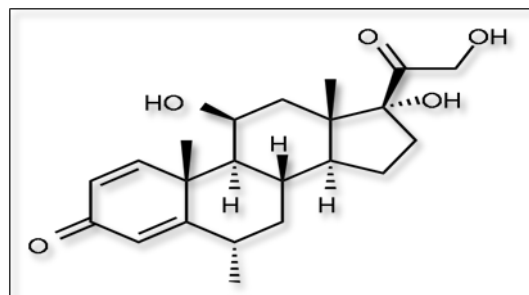
Was prepared aqueous extract of natural black animal caught Alboudr concentration 0.2.0% where Jardan given 1 ml/kg of body weight [1].

2-Methyl Prednisolone property Albraizinol

Chemical name:

Methylprednisolone is a synthetic glucocorticoid or corticosteroid drug Methyl prednisol one is made up of synthetic glycol steroid or [7].

Structural formula:



Dose used: used dose of 20 mg/kg through the tube by mouth once a day by Tube infectious [8].

Secondly-experimental animals Experimental animals. Used in the current study, the type of white rats Swiss albino rats, which had been obtained from the animal house at King Fahd Medical Research Center of the University of King Abdul Azizin Jeddah. Has been developed adult male rats aged two months

weight ranges from 150-170g, were placed in separate cages in the appropriate conditions of temperature and humidity and provide them water and adequate food.

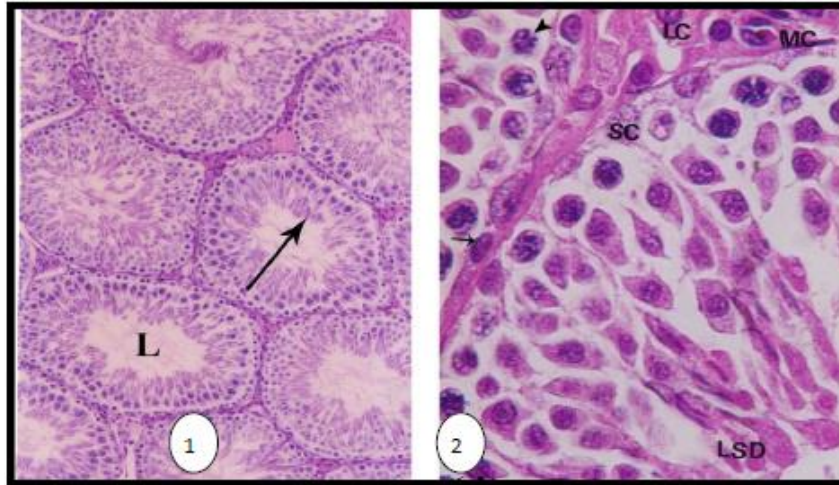
Histological study

Was histological examination of the gelding rats treated with a drug Albraizol and examine castration treatment extract musk to know the extent of their impact in the mitigation of structural damages resulting from the collateral damage of the drug Methyl Prednisolone through inspection microscopes canner Bancroft, J. D and Gamble, M.(2002) [9]. been

following the standard methods of dewatering hydration and clarification Clearing and 1 and fill in wax Albracan Paraffin embedding and the nchippinga thickness of 3microns of testicular tissue samples control, treatment and infected rats and the installed informal in neutral regulator and painted dye hematoxylin and Eosin.

3. Results

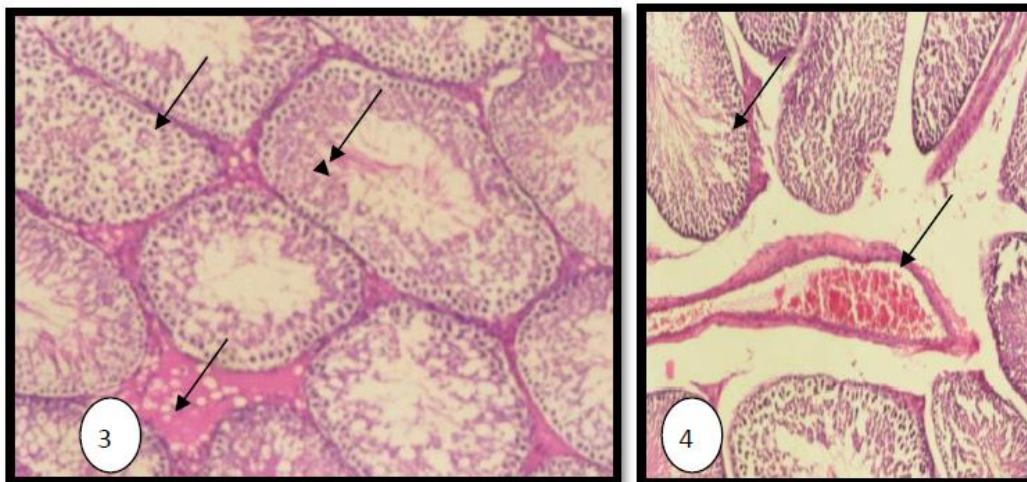
Control group (G₁).



Transverse sections (T.S.) of tests of male rate for control group (G₁).

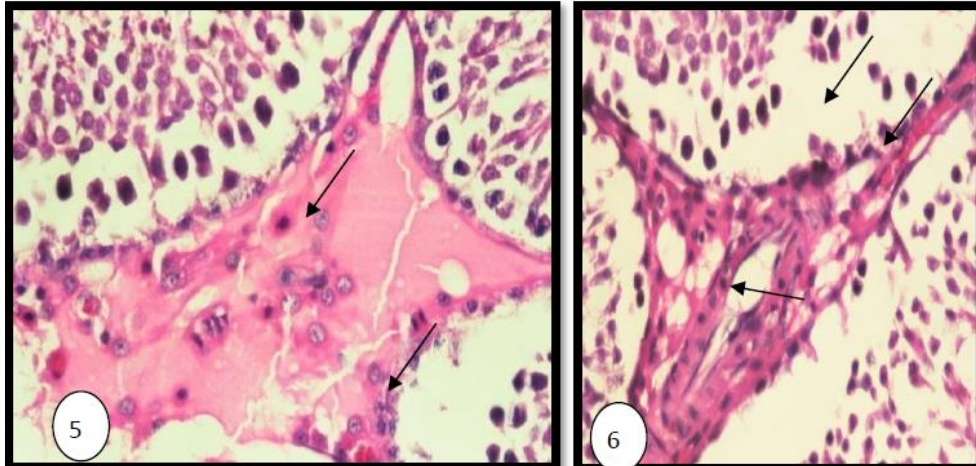
- (1): Note, enlarged seminiferous tubules populated by spermatocytes and late spermatids (↗) surround the tubular Lumen (L) (8 weeks of age (H & E; x 100).
- (2): High power from 2c showing Light (▲) and dark (↗) spermatogonium adjacent to basal Lamina; late spermatids (LSD) with elongated head directed towards Sertoli cells (Sc). Note, myoid cell (Mc) and Leydig cells (LC) (PAS, x 400).

Treatment(G₂).



Transverse sections (T.S.) of tests of male rate for treatment group (G₂).

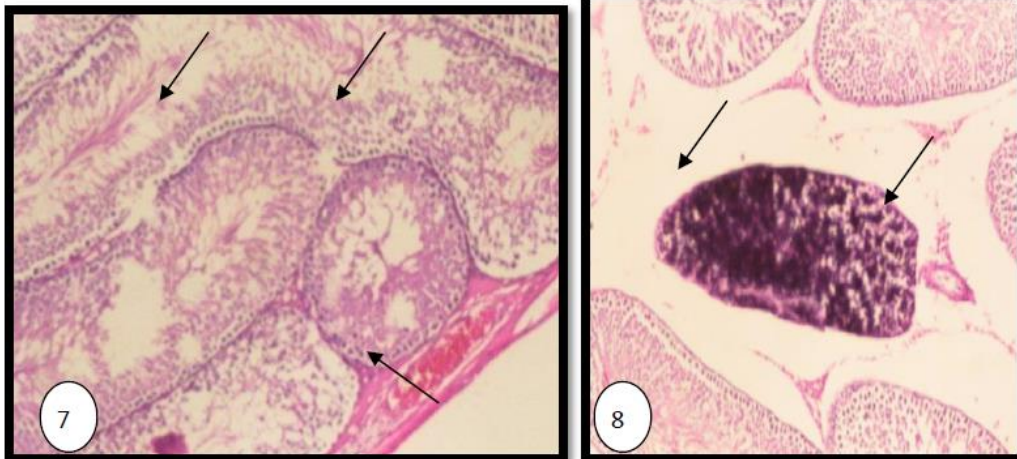
- 3- Degenerating spermatocytes (arrows) with their condensed cytoplasm, round spermatids, supranuclear clear space and irregular basal lamina) and edema in the interstitial tissue) (H & E x 400).
- 4- Red blood cell stasis in the blood vessels and oedema inside the seminiferous tubules (H & E, x 400).-



5- Necrosis of spermatocytes with pyknotic nuclei and homogeneously condensed cytoplasm (H. & E., x 400)

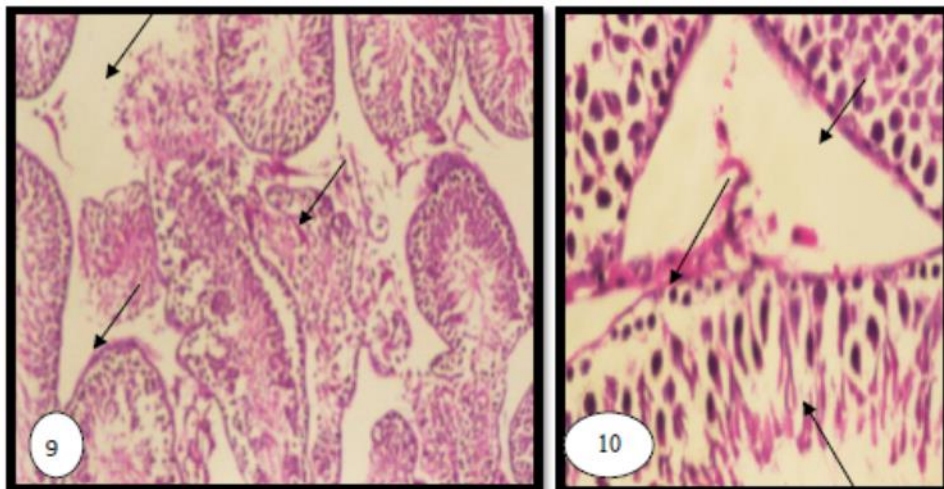
6-Damaged, nuclei of germ cell showing deformed St with loss and necrosis of spermatocytes sloughing and lyses' massive degeneration and necrotic leydig cell and wide lumen (H & E x 400)

Transverse sections (T.S.) of tests of male rate for treatment group (G₃).



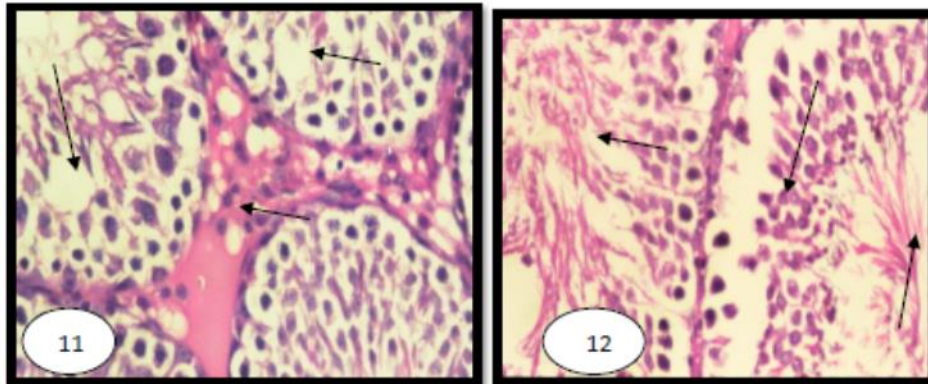
7- Showing somniferous tubules with irregular surface and contain sloughed in lumen. Note interstitial tissue and basal lamina spermatogonia still attached to some tubules (H. & E., x4 00)

8- Necrosis of spermatocytes with pyknotic nuclei and homogeneously condensed cytoplasm (H. & E., x 400)



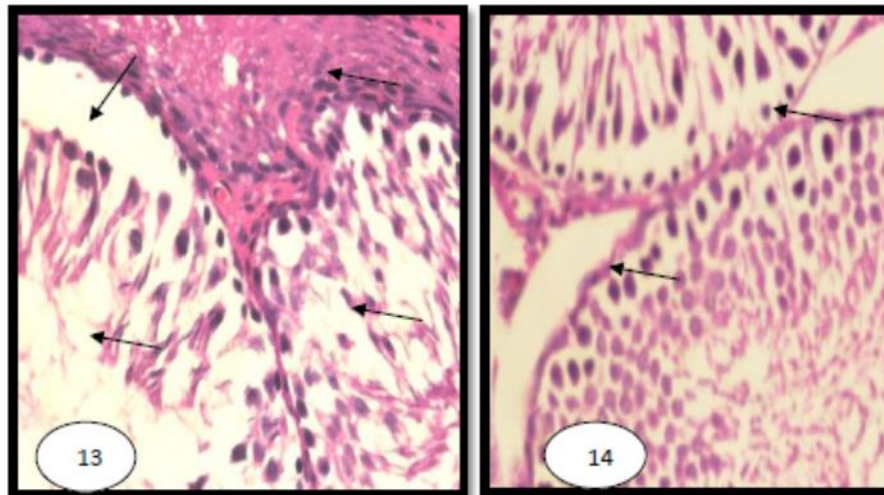
9- Somniferous tubules with deformed germinal epithelium and irregular surface (H & E, x 1000).

10- Showing germ cell necrosis deformed Sertoli cells and focal lysis of germ cells. Fragmented advanced spermatids (H & E, x 1000)



11- Atrophoid tubules, some spermatocytes and odema (H & E x 400)

12- Sloughing and lysis massive degeneration and necrotic cell and wide lumen (H & E x 400).



13 Demonstrate thickened basal lamina lyzed Myoid cell layers around Sts and widen intercellular space with abnormal (H & E, x 1000).

14 -Damaged, nuclei of germ cell showing deformed St with loss and necrosis of spermatocytes sloughing and lysis massive degeneration and necrotic leydig cell and wide lumen (H & E x 400).

4. Discussion Histomorphological changes and degenerative cells lining the seminiferous tubules Rani A, Sahai et al. [10]. These results are consistent with [11], who observed the harmful effects of the management of chronic and sub-chronic of carbaryl on the male reproductive system of animals. These effects include damage to the germinal epithelium of the seminiferous tubules and sperm changed. Seen the effect of dose related to spermatogenesis and loss of sperm from the testicle to varying degrees in male albino rats.

Kitagawa et al. [12] reported reduction in the number of spermatogonia and sperm in rats given 3 mg / kg of body weight of carbaryl orally for a period of 1 year. Musk has no effect on the testis was not

there be any renewal of cells and rebuild or increase in the formation of sperm.

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