A Comparative Study of the Effect of Unilateral and Bilateral Orchiectomy on the Functions and Histlogical Structure of Accessory Sex Glands in Local Bucks

Theriogenology

By: Firas Jabbar Taresh

Summary

This study was conducted at the College of Veterinary Medicine / University of Basrah. 12 Iraqi local breed bucks have been used, their ages between (18-24) months and body weight between (20-30 kg), for the purpose of studying the effect of unilateral and bilateral castration on the functions and histlogical structure of accessory sex glands. The study included three groups:

Group 1: Control group (non castrated group).***Group 2***: Unilateral castration group. ***Group 3***: Bilateral castration group.

The parameters for all groups were: Hormonal profile (Testosterone and LH). Seminal fluid analysis. Histlogical for accessory sex glands.

The results showed that the unilateral castration increases the testosterone (48.90 nmol\L± 1.14), (48.97 nmol\L± 0.68) (48.92 nmoll\L± 0.62) compared with the control group (43.78 nmol\L ± 0.20), (43.66nmol\L ± 0.16), (43.83 nmol\L ± 0.16) and ICSH level compared with the control group. Circumference of remaining testis, volume of ejaculate, the concentration of sperms, massive and individual motility, fructose levels in seminal fluid in comparison with the control group. Glandular structures in each accessory sex gland (histologically), which means more secretion of the seminal fluid from these glands. While the bilateral castration decreases the testosterone levels (1.18 nmol\L ± 0.10), (1.0nmol\L ± 0.09), (0.8 nmol\L ± 0.09) compared with the other two groups, but increase LH level more than the other two groups (unilateral and control), decrease in the volume of ejaculate, concentration of sperms, massive and individual motility, fructose levels in seminal fluid .Decrease in glandular structures in each gland (histlogically) which means less secretion of the seminal fluid from these glands compared with the other two.