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RESEARCH PAPER

Biometrical studies of testes and accessory sex glands in non descript buck

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ABSTRACT

The studies of testes and accessory sex glands in non descript buck were carried out. Testes, seminal vesicles and bulbourethral glands were two in number while one prostate gland were studied. The non descript buck for present work were used from local slaughterhouse of Rahuri. The animals were divided into three groups *viz.*, pre pubertal, pubertal and post-pubertal. The dissected organs were studied for length, width, thickness and weight. The left testis was slight elongated than the right, however, the right seminal vesicle was larger than the left. The biometrical observations of prostate gland was not possible since the corpus prostate was absent in buck while pars disseminata was embedded in musculature of middle part of pelvic urethra.

Key words : Testes, Accessory sex glands, Bulbourethral, Prostate, Seminal vesicle, Bucks

Two testes are primary sex organs of male. In mature animal testes perform two vital function *viz.*, to produce viable potentially fertile sperms and androgen, testosterone hormones.

The accessory sex glands provide bulk of seminal plasma. This is rich in carbohydrate, salts of citric acid, proteins, amino acids, enzymes, water-soluble vitamins and being relatively high buffering capacity.

Though the major study on testes and accessory sex glands in goat has been carried out, collective study of both are not available. Therefore, the present study was undertaken to explore the gross, study of testes and accessory sex glands *viz.*, seminal vesicles, prostate and bulbourethral glands in pre pubertal, pubertal and post pubertal buck.

MATERIALS AND METHODS

The study was conducted on 18 bucks of non descript breed. According to age, these were divided into three groups *viz.*, pre pubertal (3-7 months), pubertal (10-24 months) and post pubertal (above 24 months). Gross study of male genitalia of testes, seminal vesicles and bulbourethral gland was made as per the procedure led by Joshi *et al.* (1967). Maximum length, width, thickness and weight were recorded at each group under study.

RESULTS AND DISCUSSION

In buck a pair of testes was present. The testes (left and right) were ovoid shape, solid glands present in an attached and free border form in scrotum. Each testis presents two surfaces *i.e.* convex and medial, two borders *i.e.* cranial and caudal and has two ends upper and lower. The testes were covered by tunica albugenia and tunica vaginalis. The accessory sex glands were seminal vesicles, prostate glands and bulbourethral glands in which first two observed in pair while the remaining was single.

The biometrical observations of testes are presented in Table 1. The length of left testis in pre pubertal, pubertal and post-pubertal buck was 2.63±0.03, 5.01±0.04, 5.54±0.03 cm, respectively. The respective length of right testicle was 2.61±0.01, 5.01±0.02 and 5.52±0.14 cm.

The width of left testis in pre-pubertal, pubertal and post pubertal buck was 1.78±0.04, 3.15±0.02 and 3.73±0.02 cm, respectively. While in case of right testicle, the values observed were 1.71±0.42, 3.13±0.05 and 3.66±0.02 cm, respectively. The recorded thickness of left testis was 1.20±0.05, 2.61±0.06 and 2.82±0.04 cm and of right testicle thickness was 1.17±0.04, 2.60±0.03 and 2.78±0.04 cm, respectively.

The weight (gm) of left testis in pre pubertal, pubertal and post pubertal buck was 22.04±0.69, 46.09±0.28 and 50.15±0.74 and right testis in pre-pubertal, pubertal and post-pubertal buck was 20.85±0.30, 45.47±0.31 and 47.54±0.31, respectively.

Table 2 is showing biometrical observations of seminal vesicles in buck. The length, width, thickness (cm) and weight (g) of left seminal vesicle was recorded as 1.28±0.07, 0.78±0.10, 0.46±0.03, 0.58±0.02, respectively and the corresponding values for right seminal vesicle were 1.30±0.02, 0.80±0.18, 0.49±0.03 and 0.62±0.02, respectively in pre pubertal buck.

The length, width, thickness (cm) and weight (g) of left seminal vesicle was recorded as 2.45±0.07, 1.60±0.07, 0.49±0.02 and 3.70±0.04 while in right seminal vesicle as