

Histological and histochemical study on accessory sex glands of mature native water buffaloes from Khouzestan

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Abstract

The present study was aimed to evaluate the gross and histological structure of the prostate, Cowper and seminal glands of Khouzestan native buffalo at maturity. The accessory sex glands of 10 healthy mature native water buffalo were collected from Khouzestan industrial slaughterhouse. For histological study, specimens (0.5 cm thickness) of the prostate, Cowper and seminal glands were fixed in 10% buffered formalin. The samples then were processed using for the standard histological method. Paraffin blocks were sectioned at 5–6 μ m and stained with hematoxylin and eosin, periodic acid Schiff, alcian blue, toluidine blue and Masson's trichrome. Results of this study showed that the seminal glands were tube-like structure, hard, tough, multilobulated and large lobules on the outer surface grossly. Cowper's glands were ovoid in shape, located on the dorsal surface of the pelvic urethra. Furthermore, the prostate gland in native water buffalo' comprised of pars disseminate and corpus prostate. Histologically, the seminal glands were enclosed with loose connective tissue and thick smooth muscular tissue. Cowper's glands were covered with a thick well-developed fibromuscular capsule, formed of high concentration of collagen fiber and smooth muscle bundles. The parenchyma of the seminal and prostate was tubuloalveolar units and ducts. In conclusion, the results of this study showed that the accessory sex glands in Khouzestan native buffaloes are the essential glands of the genital system and they have a distinct and individual histological structure.

Key words: Macroscopy, Histology, Accessory sex glands, Buffalo, Khouzestan

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