



Histomorphology of The Accessory Genital Glands of Boar

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KEYWORDS

The study was conducted on the accessory genital gland of Boar. The male accessory genital glands included paired seminal vesicles, prostate and bulbourethral gland. There is no distinct ampulla of vas deferens. Accessory genital glands serve to nourish the spermatozoa, activate the spermatozoa and serve as a vehicle for transport of the spermatozoa within female tract (Dukes, 2005)

Material Methods

The accessory genital glands of boar utilized for the histological observation. Complete male genitalia were collected immediately after slaughter from local abattoirs. The accessory genital glands was dissected, than the tissue were fixed in 10% neutral buffered formalin. The fixed tissues were processed through the alcohol-benzene schedule, and paraffin sections (5µm) were cut and stained with Harris hematoxylin and eosin for histomorphology, Von Gieson and Verhoeff's for Connective Tissue, Gomori method for reticular connective tissue (Luna 1968)

Results and Discussion

Seminal vesicles glands was compact glandular tissue arranged in multiple lobules and containing secretory tubules with well developed lumina. Similar findings recorded by Banks (1986). These glands possess a common connective capsule and divided into lobules separated by septa (fig 1). In seminal vesicles there folding of epithelium in secretory alveoli (fig 2). The secretory tubules with an irregular and are surrounded by a muscular layer. The mucosa is thrown in longitudinal folds. The capsule consisted of circularly arranged smooth muscle fibers. The epithelium is lined by columnar cell. The tubules, alveoli and ducts were lined with pseudostratified columnar epithelium. Besides the alveoli and tubules, the glandular parenchyma showed many solid end-pieces. The secretory end-pieces were found scattered in between alveoli and tubules in each lobule, separated by thin interlobular connective tissue comprising smooth muscles, collagen and reticular fibers. Lamina propria constituted by loose connective tissue with mast cell, collagen and elastic fibres.

Muscular layer is thin, circularly arranged and extends into folds of mucosa. Tunica adventitia consisted of loosely arranged collagen, elastic and reticular fibers.

Prostate glands consists of corpus prostaticae (external portion) and pars disseminate prostaticae (internal portion) as also observed in ox by Dellmann and Wrobel, (1983). Prostate glands was tubulo alveolar gland surrounded by connective tissue capsule and encircled by urethralis muscles. Capsules composed of dense irregular connective tissue rich in collagen fibers, reticular fibres. The septa were composed of collagen, reticular fibers and smooth muscles (fig 3,4). The septa extended and divided the gland into various lobules which consisted of solid and glandular unit (alveoli, tubules and ducts).

The serous secretory end pieces and ducts were lined with cuboidal epithelium. The collecting ducts contained were lined with stratified cuboidal epithelium. In the cranial part gland was confined to dorsal region of urethral wall. In middle and caudal part glands located throughout. Similar findings recorded by Sudhakar (2005) in yak. Internal portion encircles the pelvic urethra and better developed than external portion. Tunica adventitia consisted of loose connective tissue comprising mainly collagen and reticular fibers also surrounded the pelvic urethra.

Bulbourethral gland were compound tubulo-alveolar glands. Bulbourethral gland was predominantly mucous glands. The capsule and septa were made up of dense irregular connective tissue rich in collagenous fibres (fig 6). The mucous end pieces were lined with columnar epithelium. The glandular parenchyma was composed of alveoli, tubules and solid end-pieces. The alveoli and tubules were predominantly mucous in nature. In mucous end-pieces both alveoli and tubules were lined with tall columnar cells and basally placed with oval and flat nuclei.



Fig 1 Seminal vesicles showing capsule and collagen fibres (brown colour) . Von Gieson & Verhoeff's stain X 100

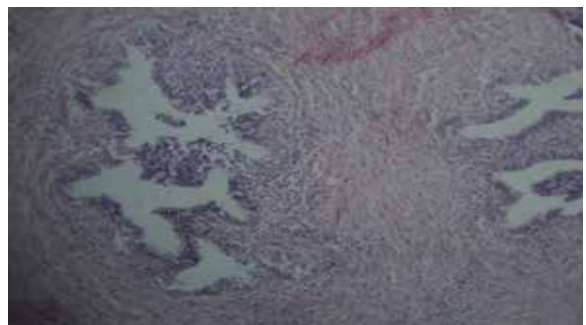


Fig 2 Seminal vesicles showing folding of epithelium in secretory alveoli. H & E X 100

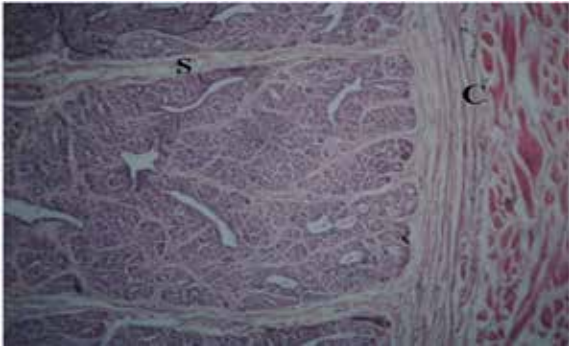


Fig 3 Pars disseminata showing capsule (C), septa(S) H & E X 100

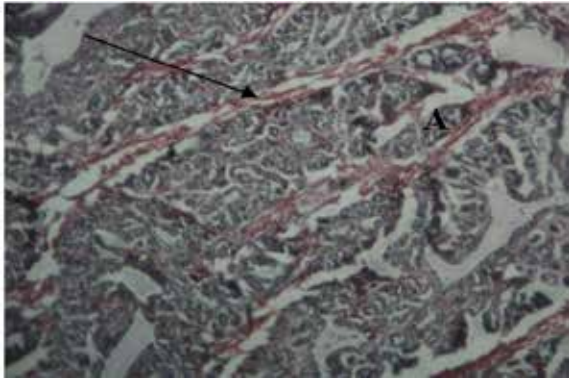


Fig 4 Pars disseminata showing reticular fibers present in septae & around alveoli & tubule. Gomori's Reticulum stain X 100

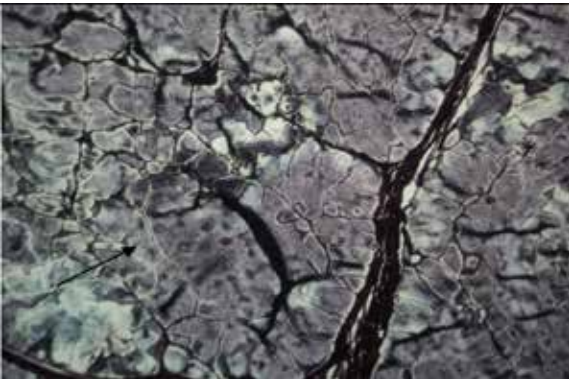


Fig 5 Pars disseminata showing reticular fibers around alveoli and tubule & in septa (black colour). Gomori's Reticulum stain X 100

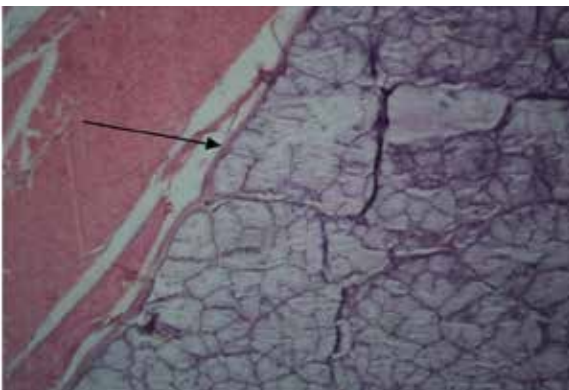


Fig 6 Bulbourethral gland showing capsule (arrow) and mucous end piece. H & E X 100

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