

Morphological features of natural cryptorchid sheep testes: a case study

ABSTRACT

The present study compares the morphological features of abdominal testes of natural bilateral cryptorchid adult sheep with that of scrotal testes in normal adult sheep. Specimens obtained from cryptorchid local sheep testes and epididymides were fixed and processed for light and scanning electron microscopy. Testes of normal sheep were fixed and processed in the same way and used for comparison. The retained testes that were detected in the pelvic cavity were small and flabby with indistinct superficial blood vessel ramification compared to the scrotal testes. Histologically, the seminiferous tubules of the retained testes were small, empty, lined with a single layer of degenerated cells resting on a thickened basement membrane surrounded with abundant interstitial tissue compared to the scrotal testis. The epididymis of the retained testes was empty and lined with high pseudostratified columnar epithelium with long stereocilia, while the scrotal testis epididymis was distended with stored sperms and lined with low epithelial layer with indistinct stereocilia. The connective tissue layers around the epididymis were very thick in retained testes compared to that of the scrotal testes. The outcome of this study demonstrates microscopic and macroscopic changes in cryptorchid testes. Further investigations are required regarding the ultrastructural changes in abdominal testis.

Keyword: Cryptorchidism; Sheep; Scrotal testes; Seminiferous tubule