

ANATOMICAL AND HISTOCHEMICAL FEATURES OF THE BULBOURETHRAL GLANDS IN BACTRIAN CAMEL (*Camelus bactrianus*)

Yiwei Luo¹, Haiyan Li¹, Yanhong Lv¹, Shaoqing Xu¹, Yanguang Liu¹,
Na Zhang¹, Degui Wang², Baoping Shao¹ and Jianlin Wang¹

¹School of Life Sciences, ²School of Basic Medical Sciences,
Lanzhou University, Lanzhou, 730000 Gansu, P.R. China

ABSTRACT

Anatomical and histochemical features of bulbourethral glands in the Bactrian camel were investigated by gross-anatomical, histological and histochemical methods, and also by transmission microscope. The bulbourethral glands are compound tubuloalveolar glands, surrounded by a capsule of dense connective tissue. The lobules of the glands are formed by secretory units and excretory ducts, which are both lined by a single epithelium of mucous cell with a basal nucleus. Three types of secretory unit, designated A, B and C, were observed in the glands. Type A is lined with high columnar cells and the cytoplasm contains lots of secretory granules, which are PAS-positive, Alcian Blue-positive but Toluidine blue-negative. Type B is lined with pyramidal or cuboidal cells and the cytoplasm shows PAS-positive, Alcian Blue-positive and Toluidine Blue-positive. The ultrastructures of epithelial cell shows that amount of granules with different electron density occupy the most space in the cytoplasm. Secretory granules can contain round inclusion. The shape of the epithelium varies according to the different stage of the secretory cycle.

Key words: Anatomy, bactrian camel, bulbourethral glands, histochemical feature