

Gross anatomy of the narial and labial musculatures of one humped Camel (*Camelus dromedarius*)

ADAM, Z. A., AWAAD, A. S., TAWFIEK, M. G.* and IBRAHIM, A. L. H.

Department of Anatomy and Embryology, Faculty of Veterinary Medicine, Beni-Suef University, Beni-Suef 62511, Egypt

*E-mail: mgtawfiek@yahoo.com

Abstract

Introduction: The objective of this study was to clarify the anatomy of the narial and labial musculatures of the one-humped camel (*Camelus dromedarius*) and their nerve supply. **Materials and Methods:** Sixteen head specimens from adult and symptomatically healthy camels of both sexes were used. The muscles of the nostrils and lips were carefully dissected and illustrated to demonstrate their origin, insertion and relations. The nerves in this area were also dissected to show their branches and distribution. **Results:** The dissection of these regions revealed that their muscles were arranged in three layers; the superficial layer included M. dilator naris apicalis, M. dilator naris medialis and M. levator nasolabialis, the middle layer was formed of maxillo-labial group of muscles (M. levator labii superioris, M. dilator naris lateralis and M. depressor labii superioris) and the deep layer was formed by M. lateralis nasi. Moreover, the lips had M. orbicularis oris, M. incisivus superioris, M. incisivus inferioris and M. mentalis, however, the M. depressor labii inferioris was absent in the animal under investigation. The muscles of nostrils and lips were innervated by N. trigeminus (V) and N. facialis (VII). **Conclusion:** The arrangement of the narial and labial muscles is unique and may relate to its living conditions of frequent sand-storms and direct sun rays, where the camel is the only domesticated animal known for its ability to close its nostril.

Keywords: camel, anatomy, nostril, lips, muscles, nerves.