

**The Camel Rhinarium: A Study Revealing the Presence of the Nasal Plane in Dromedary Camel (*Camelus dromedarius*), with Special Reference to Its Epidermal Structure.**

**E. A. Eshrah\***

Department of Anatomy and Embryology, Faculty of Veterinary Medicine,  
Benha University, Benha, Egypt.

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**ABSTRACT**

The aim of this study was to prove that the nasal plane (*Planum nasale*) present in camel (*Camelus dromedarius*). Furthermore, it was the first description of the gross and primary microscopic anatomy as well as the epidermal ultrastructure of the camel nasal plane. Grossly, the camel rhinarium was formed of the glabrous grayish-black skin that extended to cover the philtrum and the medial nasal angles. It was composed of two perinasal parts and an interlabial part. A shallow groove was passed across its middle. A dermatoglyphic pattern of epidermal ridges with primary and secondary fissures in between was revealed by scanning electron microscopy. The nasal plane was very small in relation to the camel head size. In general, the morphological appearance of the camel rhinarium was greatly similar to that of the proboscis-bearing mammals. The basic histological structure as well as the epidermal ultrastructure of the camel nasal plane was observed to resemble very closely the common type. Few differences were found, including indistinct or absent hypodermal layer, thinner stratum corneum and some basal cells have unusual sinuous bases.

