

CASE REPORT

SURGICAL MANAGEMENT OF OCULAR DERMOID CYST IN LIBYAN CAMEL (*Camelus dromedarius*)

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ABSTRACT. A dermoid cyst is a non-neoplastic, benign dermatologic injury. This case describes the finding of a dermoid cyst that was surgically extracted on-field in western Tripoli from a 10-year-old male dromedary camel which was presented with a large peduncle mass at the left eye, at the central corneal site, with profuse lacrimation due to continuous irritation of avulsed large, edematous bleeding and continuous irritation. A decision was made to repair the avulsed part of the eyelid under local infiltration anesthesia and zylazine deep sedation. Obligation of proper surgical techniques and maintenance of adequate postoperative measures were conducted locally at the farm.

Keywords: Libyan dromedary camel, cornea, dermoid cyst, sedation

CASE HISTORY

The aim of the present report was to describe an ocular dermoid cyst in camel (*Camelus dromedarius*) and surgical intervention as follow up. An approximately 10-year-old male dromedary camel used for breeding in a private farm in the city of Tajoura, East of Tripoli, was presented with a nodule developing on the left eye at the side of the

cornea that causes the lid margin to avulse in the shape of a large, edematous flap hanging down over the cornea causing continuous irritation and profuse lacrimation (Figure 1) due to the localisation of the dermoid. Surgical excision was carried out followed by medicinal treatment. As the procedure was conducted under field conditions without any application of general anesthesia, the animal was physically restrained in a right lateral recumbency and deeply sedated



Figure 1. A large mass of ocular dermoid cyst in camel at the left eye that attached directly to the cornea.

by intravenous administration of 10 ml Rompun® 2% (Bayer AG Leverkusen). 20 ml of 2% lidocain was administrated as local infiltration anesthesia. The clinical diagnosis was unilateral corneal dermoid. Surgical operation and the treatment procedure of ocular dermoid was carried out.

DISCUSSION

Dermoid cyst is a rare non-neoplastic skin abnormality that is congenital or hereditary in nature (Adams *et al.*, 1983), characterised by a focal duplication of the whole dermatologic structure, including skin and associated structures (Freitas *et al.*, 2005) and the presence of sebaceous and sudoriparous glands and/or hair follicles (Pereira *et al.*, 2008). Skin-like appendage usually arises on the limbus, conjunctivae, and cornea (Gelatt, 1981). Its macroscopical features are similar to follicular cysts and full thickness tearing of either of the eyelids commonly occurs as a result of browsing on thorny bushes and trees, accidental rubbing or, invasion by a barbed wire (Bishnoi and Gahlot, 2004; Gahlot *et al.*, 2007; Siddiqui and Telfah, 2010; Gharu *et al.*, 2013; Ramdan, 2014). Unlike the well documented dermoid cyst in humans, the abnormality is uncommon in animals and thus far has been reported in dog (Hargis *et al.* 1977, Liptak *et al.* 2000), cat, bovine (Henderson *et al.* 1993; Baird *et al.* 1993), horse (Scott and Miller 2003, Munoz *et al.* 2007), goat (Gamlem and Crawford 1997) and camel (Tmumen, 1992).

Ocular dermoid was corrected surgically as reported earlier in different animal species such as in canines (Dice 1980), felines (Roberts and Lipton 1975) and

bovines (Shiju *et al.*, 2010). The mechanism of action in the development of ocular dermoid pathogenesis is not known (Gelatt, 1972; Greene *et al.*, 1973; Yeruham *et al.*, 2002). Dermoid must be removed surgically, otherwise it might cause irritation and interfere with vision. It has to be dissected carefully from the underlying cornea to avoid penetrating the anterior chambers of the eye (Roberts and Lipton, 1975, Hillyer *et al.*, 2003; Munoz *et al.*, 2007). Postoperatively, an ophthalmic ointment was applied to provide lubrication and protect the cornea during wound healing, and this technical management was agreed with Maggs (2008) and Siddiqui and Telfah (2010). This study reports the first case of a rarely seen large mass ocular dermoid cyst in a Libyan camel. It can provide a useful guide for veterinary surgeons in the planning of prompt treatments of similar cases in the future.

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