Successful Management of Corneal Dermoid in an Ongole Bull – a Case Report

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Abstract
Corneal dermoid was reported in one year old ongole bull and removed successfully by superficial keratectomy.

Key words: Dermoid, Bull, Keratectomy

Introduction

Dermoid cyst is a rare non – neoplastic skin abnormality i.e. characterised by a focal duplication of the whole dermatogenic structure, including skin and associated structures (Freitas et al. 2005). Ocular dermoids are skin or skin like appendages that arise usually on the limbus, conjunctiva and cornea (Ismail, 1993). Dermoid occurs sporadically in numerous cattle breeds and can be unilateral or bilateral (Williams and Gellat, 1981). Dermoid cysts are usually corrected surgically as they cause interference with vision in bovines (Shiju et al. 2010). The present paper deals with the surgical management of corneal dermoid in an ongole bull.
Case Report and Treatment

A one year old ongole bull was presented to college clinic, Dept. of Veterinary Surgery & Radiology, Tirupati with signs of profuse lacrimation and mild conjunctivitis of right eye. As per history a small unusual mass (cyst) was detected at birth in the right eye and gradually increased in size with slight impairment of vision. The animal was carefully examined and was diagnosed as a case of corneal dermoid (Fig. 1). The animal was restrained for surgical removal of the cyst. Auriculo palpebral and Peterson’s eye blocks were given to desensitize the eyelids and eyeball by using 2 % lignocaine Hydrochloride. The eyelids were then held open by an assistant. The dermoid growth was grasped with a small pair of haemostats and then carefully dissected from the underlying cornea to avoid injury to the anterior chamber of the eye with a very sharp, thin bladed scalpel (Fig. 2). Post operatively, parenteral antibiotics and non – steroidal anti inflammatory drugs were used. Chloramphenicol applicaps were used T.I.D for 5 days. The vision was normal after surgery and recovered uneventfully. The animal reviewed after one month to rule out any reoccurrence.

Discussion

The precise developmental mechanisms involved in the pathogenesis of ocular dermoids are not known. Metaplasia of mesenchyme (of primarily neural crest origin), resulting in abnormal differentiation of the surface ectoderm, is considered the most likely mechanism. The resulting dermoid consists of ectodermal elements (keratinized epithelium, hairs, sebaceous and apocrine glands) and mesenchymal elements (fibrous tissue, fat and cartilage) combined in different proportions.

Occular dermoids may be associated with other congenital ocular or multi – organ abnormalities (Hillyer et al. 2003 and Munoz et al. 2007). The site of dermoid cysts varies among species. In humans cerebral (Akhaddar et al. 2002), spinal medullar (Nishie et al. 2003), ovarian (Ferrari et al. 2003) have been described. In bovines dermoid cysts occur in the ocular and periocular regions (Akhaddar et al. 2002 and
Ashkan et al. 2002). The indicated treatment is the surgical removal of the dermoid cyst (Hillyer et al. 2003 and Munoz et al. 2007).

References