

## Ocular Dermoid in Crossbred calf- A Case Report

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### Abstract

The present paper deals with a typical case of ocular dermoid cyst in three weeks old crossbred calf. The patient had a history of lacrimation and a hairy growth in the left eye. Based on the history and clinical examination, the case was diagnosed as ocular dermoid cyst and removed successfully by superficial keratectomy.

**Key words:** Calf, Dermoid, Keratectomy, Teratology

### Introduction

Ocular dermoid is a congenital defect recognized in animals Barkyoumb and Liepold (1984), characterized by the islands of skin that are histologically normal but misplaced to an abnormal location, usually the lateral canthus, limbus, third eye lid, medial canthus, cornea and eyelid. It can be unilateral or bilateral and may be associated with other ocular manifestation, or with other malformations. Hair from the lesions is predominantly responsible for the associated irritation resulting in chronic inflammation of the conjunctivae and cornea, and may cause visual impairment. Being a congenital anomaly, dermoid was recorded in different cattle breed. However, it is believed not to be inherited (Yeruham *et al.*, 2002).

It is believed that these cysts originate from an incarceration and subsequent growth of embryonic epithelial cells during the closure of the neural tube, and therefore, most of these lesions occur along the median line (Muñoz *et al.*, 2007, Menditti *et al.*, 2008). However, there are reports of acquired dermoid cysts, secondary to traumatic epithelial dislocations (Hillyer *et al.*, 2003). The increased size of the cyst occurs due to normal cell desquamation within the cyst cavity leading to secondary signs related to the compression of adjacent structures (Larazidis *et al.*, 2007).

It may be solitary or multiple, firm to fluctuant, well circumscribed, smooth, and round and usually the overlaying skin is normal (Shields *et al.*, 1986). The cyst usually contains hair, keratin, and sebum, and these materials may produce progressive enlargement of the structure so that it becomes clinically apparent (Edwards, 2002). Histologically, dermoid cysts/sinuses are lined with stratified epithelium resembling normal skin with adnexa and filled with keratinous material (Munoz *et al.*, 2007). Dermoid cyst usually corrected surgically as they cause interference with vision (Roberts and Lipton, 1975; Dice, 1980). The present communication deals with the surgical management of corneal dermoid in a cross bred calf.

### **Case Report**

Three weeks old cross bred calf was presented to Aflagat veterinary clinic from a nearby privately owned dairy farm with the complaint of lacrimation and a hairy growth in the left eye. As per history a small unusual mass (cyst) was detected at birth in the left eye which developed gradually and increased in size. On close examination, hairy growth was observed on the limbus and bulbar conjunctiva of the left eye (Fig. 1& 2). There was lacrimation due to irritation caused by the hairs. The animal had normal feeding habits. Temperature, pulse and respiration were in the normal range. The animal was carefully examined and the growth was tentatively diagnosed as a congenital dermoid cyst. The calf was then restrained and prepared for surgical removal of the cyst.

### **Treatment**

Anesthesia: Auriculopalpebral nerve block was achieved by using 6ml of 2% lignocaine HCL (Jasocaine, Jayson Pharmaceuticals, Dhaka, Bangladesh) to cause motor paralysis of the eye lids. Since this block does not cause analgesia of the eye ball topical anesthesia (lignocaine HCL) was also used.

Operative procedure: Superficial keratectomy was performed. The tissue was rasped with forceps and the dermoid cyst was completely excised by surgical blade no. 11 from the limbus and bulbar conjunctiva (Fig. 3.) by careful dissection to avoid injury to the anterior chamber of the eye. Postoperatively, eye drop dexamethasone and broad spectrum tetracycline eye ointment was used T.I.D. for five consecutive days. The calf made uneventful recovery and was again examined after three weeks to rule out any re-occurrence.



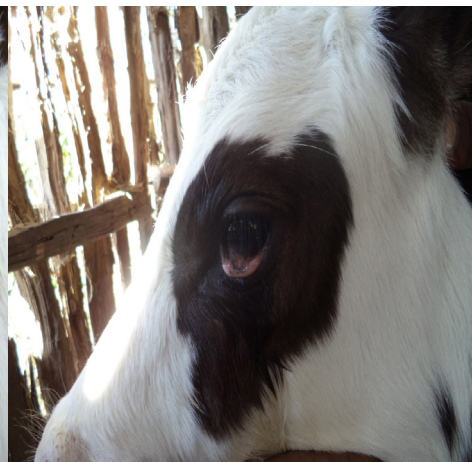
**Figure 1.** The left eye with protruding hairy growth



**Figure 2.** The left eye with closely adherent hairy growth on the conjunctiva



**Figure 3.** Left eye after a complete removal of dermoid cyst



**Figure 4.** The left eye showing recovery (after one week)

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