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## Ocular dermoid cyst in a calf and its surgical management

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### Abstract

A calf of one week old age was presented with a growing dermoid cyst on both eyes. The dermoid cyst was removed surgically under locally 2% Lignocaine anaesthesia in lateral recumbancy position. The calf was uneventful recovery with appearance of more vision and absence of lachrymation in both eyes.

**Keywords:** Calf, ocular dermoid cyst, lignocaine

### Introduction

Ocular dermoid is a congenital lesion observed rarely in new born animals (Jones *et al.*, 1996)<sup>[1]</sup>. It is a skin or skin-like appendage usually arising on the limbus, conjunctivae and cornea (Ismail, 1994)<sup>[2]</sup>. It can be unilateral or bilateral and may be associated with each other ocular manifestation or with other malfunction. The incidence of corneal dermoids in domestic animals is 3.4% (Pawde *et al.*, 2005)<sup>[3]</sup>. Grossly the affected cornea appeared to be covered over part of its surface with haired, usually pigmented skin (Jones *et al.*, 1996)<sup>[1]</sup>. 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 (Gelatt, 1981)<sup>[4]</sup>. This paper deals the surgical management of bilateral dermoid cyst in a female calf.

### Case history and clinical findings

A one week age old female calf weighing approx. fifty kg was found in good bodily condition and no further abnormalities were detected on physical examination was presented in Veterinary Dispensary, Teliamura Khowai district in Tripura India with an abnormal appearance of both eyes since birth. After clinical examination revealed the slight vision on right eye was absent but in left eye was normal. There was a large fleshy mass containing hairs was attached to sclera and cornea on both eyes. Both eyes were with excessive lachrymation (fig. 1). The case was diagnosed to be a congenital dermoid cyst.

### Anaesthesia and Surgery

The calf was restrained in lateral recumbency. The calf's eyelashes were trimmed, and then the eye was washed with normal saline solution to remove dirt and contaminants and then dried with sterilized gauze. The surgical site that upper and lower eyelids were anaesthetized with 2% Lignocaine Hydrochloride solution. Eye speculum was used for proper exposure of operative field. With no. 11 BP blade the cysts were peeled off along with the dermal layers containing the follicles as close as possible to the cornea by partial keratectomy from the palpebral and bulbar conjunctiva and nictitating membrane. This could prevent the regrowth of hair follicles. The mass was excised and bleeding was controlled by instillation of adrenaline solution. The same procedure was carried out with another eye. Eye was flushed with NSS solution 2-3times until blood clot was removed from the eye (Fig. 2). The calf was administered gentamycin at a dose of 4mg/kg, IM, for seven days. On the second day corneal opacity and episcleral congestion were noticed. Ciprofloxacin eye drops were instilled after two days. The condition subsided gradually and the calf had an uneventful recovery with appearance more vision and absence of lachrymation in both eyes.

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**Fig 1:** Before Surgery



**Fig 2:** After Surgery



**Fig 3:** Dermoid cyst removed During Surgery

### Result and Discussion

Ocular dermoid in cattle are not common with an estimated prevalence of 0.002-4% (Brunedall *et al.* 2008) [6]. Ocular dermoid have been reported in cattle of many breeds worldwide (Yerunham *et al.* 2002) [7]. In the present case lacrimation was observed due to irritation that caused by hair and cyst in the eye.

Ocular dermoid may be associated with other congenital ocular or multiorgan abnormalities, which was not found in the present case. Barkyoumb and Leipold (1984) [8] described cardiac defects (teratology of fallot and patent ductus arterious), polycystic kidney disease and small masses protruding into the external nares in some of the 75 calves reported with ocular dermoid although they did not specify the no. of calves affected and whether calves showed one or more combination of the three abnormalities.

### Conclusions

Ocular Dermoid cyst is associated with other congenital ocular or multiorgan abnormalities. It may cause temporary to permanent damage if not treated properly. The present study reports successful surgical removal and treatment of growing ocular dermoid cyst in a calf in which surgery was performed under 2% Lignocaine anaesthesia in lateral recumbency position.

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