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## Surgical management of bilateral ocular dermoid in Haryana cattle: A case report

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### Abstract

A stray adult cattle was brought to the People for Animal Trust, Faridabad, Haryana with a history of abnormal skin like haired mass on both the eyes. Clinical examination revealed that, there was hairy growth over the cornea and epiphora on both eyes. It was diagnosed as bilateral corneo-conjunctival dermoid based on history and clinical examination. The animal was sedated with xylazine and auriculopalpebral nerve block was given with 2% lignocaine to desentize the eye ball. Dermoid tissue on dorsal side of cornea was grasped and was excised gently by superficial keratectomy procedure.

**Keywords:** Ocular dermoid, epiphora, hair growth

### Introduction

Dermoid cysts consist of keratinized epithelium and adnexal structures such as hair follicles, sweat glands, and sebaceous glands. They slowly enlarge with age. However, prevalence estimated between 0.002% -0.4% (Yeruham *et al.*, 2002) <sup>[10]</sup>. It is a congenital defect characterized by skin-like appendage that are histologically normal but misplaced to an abnormal location (Ismail, 1994) <sup>[5]</sup>. Being a congenital anomaly, dermoid was recorded in different cattle breed. However, it is believed not to be inherited (Yeruham *et al.*, 2002) <sup>[10]</sup>. Dermoid containing hair follicle is associated with irritation resulting in chronic inflammation of conjunctivae and cornea may result in visual impairment (Maggs *et al.*, 2012) <sup>[7]</sup>. Due to this irritation and visual impairment these dermoids are corrected surgically. The present case was deals with surgical management of bilateral ocular dermoid in stray haryana cattle.

### Case Report

A stray adult cattle was brought to the People for Animal Trust, Faridabad, Haryana with a history of abnormal skin like haired mass on both the eyes. On clinical examination it was found that large fleshy mass was attached to the cornea and sclera with large number of hairs arising from the surface. The animal was unable to close both the eyes normally. Blepharospasm was observed as the hairs on the dermoid were irritating the cornea thereby resulting in 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 animal was then restrained and prepared for surgical removal of the cyst.

### Treatment and Discussion

The animal was sedated with 0.1mg/kg Xylazine intramuscularly and restrained on left lateral recumbency. Auriculopalpebral nerve block was achieved by using 7ml of 2% lignocaine HCL to cause motor paralysis of the eye lids. The calf eyelashes were trimmed and washed with 0.9% povidone iodine solution to remove contaminants. After attainment of adequate sedation, superficial keratectomy was performed. The mass was grasped with forceps and tissue was completely excised with bard parker blade number 15 from the limbus and bulbar conjunctiva by careful dissection without damaging the anterior chamber of the eye.

After that the surgical site was bandaged with the help of cotton bandage to prevent the further contamination of the site. Post operatively ciprofloxacin and flurbiprofen eye drop T.I.D in a day for 5 days. Systemic antibiotic Gentamycin 3mg/kg body weight, intramuscular and Meloxicam 0.4mg /kg body weight, intramuscular for 3 days were given. The animal was further put on veterinary care at the Aastha shelter home and animal showed uneventful recovery after 10<sup>th</sup> post-operative day of surgery.

The animal was re-examined for one month for any recurrence but did not show any recurrence of dermoid after one month of re-examination. After the said time period animal was then released from the Aastha shelter home.

On the basis of clinical findings and history the case was tentatively diagnosed to be of bilateral ocular dermoid. Dermoid was successfully removed by superficial keratectomy. Post-operative recovery was uneventful and re-examination after one month did not show any sign of reoccurrence of dermoid. Since we don't have the exact history about its occurrence it was suspected to be a congenital case of ocular dermoid. Being congenital anomaly, dermoid occurs sporadically in numerous cattle breeds and can be unilateral or bilateral (Williams and Gellat, 1981) [9]. Dermoid may be located in the third eyelid, cornea, conjunctiva, corneoconjunctival junction and limbus region (Alam *et al.*, 2012) [1]. Similar findings were noticed in our case where the dermoid cyst was located on the corneoconjunctival region. The dermoid may contain many elements of normal skin such as epidermis, dermis, fat, sebaceous glands, hair follicles and frequently hair which results in irritation of the eye and the animal suffers from chronic epiphora, conjunctivitis or keratitis (Pandey *et al.*, 2011) [8] thereby resulting in visual impairment (Dewangan *et al.*, 2016) [3]. Early excision is warranted else the long hairs arising from surface of the tissue may cause conjunctival and corneal irritation leading to epiphora, conjunctival edema, keratitis with subsequent visual impairment in prolonged cases (Kilic *et al.*, 2012) [6].

Superficial keratectomy is required to surgically excise a corneal dermoid (Bhatt *et al.*, 1964) [2] although the depth of the dermoid within the cornea cannot be ascertained by ophthalmic examination until surgery is undertaken (Bhatt *et al.*, 1964 and Golubovic *et al.*, 1995) [2, 4]. To avoid further complication such dermoid should be excised early in the life of patient so as to achieve better eye functions.



**Fig 1:** Dermoid cyst in the both eye with sign of epiphora



**Fig 2:** Corneo-scleral dermoid cyst



**Fig 3:** Dermoid cyst was surgically removed by superficial keratectomy procedure

### References

1. Alam MM, Rahman MM. A three years retrospective study on the nature and cause of ocular dermoids in cross-bred calves. *Open Veterinary Journal* 2012;2:10-14.
2. Bhatt PL, Vyas AP, Kohli RN. Congenital malformation of head in calves - a record of three cases. *Indian Veterinary Journal* 1964;41:736-739.
3. Dewangan R, Kalim MO, Tiwari SK, Sharda R. Surgical correction of bilateral ocular dermoid in a Sahiwal male calf. *Int J Sci Environ Technol* 2016;5(5):3401-3404.
4. Golubovic SZ, Latkovic Z, Horvatic-Obradovic M. Surgical treatment of large corneal dermoid. *Documenta Ophthalmologica* 1995;91(1):25-32.
5. Ismail SF. Ocular dermoids in some farm animals. *Assiut Veterinary Medical Journal* 1994;30:212-220.
6. Kilic N, Toplu N, Epikmen ET. Surgical treatment of corneal large dermoid in a simmental calf. *Acta Scientiae Veterinariae* 2012;40(2):1041.
7. Maggs DJ, Miller P, Ofri R. *Slatter's fundamentals of veterinary ophthalmology*. 4 Edition, Elsevier Health Sciences, USA 2012,148-181.
8. Pandey SS, Bharti B, Patidar A, Shukla N. Surgical correction of corneal 2011.
9. Williams LW, Gelatt KN. Food Animal ophthalmology. *In: Textbook of Veterinary Ophthalmology*, ed. Gellat, Lea and Febiger, Philadelphia 1981, 606-648.
10. Yeruham I, Perl S, Liberboim M. Ocular dermoid in dairy cattle-12 years survey. *Revue. Méd. Vét* 2002;153(2):91-92.