

Research Article

SURGICAL MANAGEMENT OF CONJUCTIVAL DERMOID IN A CROSS-BRED CALF-A CASE REPORT

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ABSTRACT

Conjunctival dermoid in a cross bred calf was reported along with its surgical management.

Keywords: *Dermoid, Conjunctiva, Cross-Bred Calf*

INTRODUCTION

Ocular dermoid is a skin or skin-like appendage usually arising on the limbus, conjunctivae and cornea (Ismail, 1994). It can be unilateral or bilateral, associated with other ocular manifestations. Hair from the lesion is predominantly responsible for irritation resulting in inflammation of the conjunctiva and cornea and may cause visual impairment (Greene *et al.*, 1973). Ocular dermoids are rare in cattle, with prevalence estimated between 0.02% and 0.4% (Yeruham *et al.*, 2002). This paper reports successful management of conjunctival dermoid in a cross bred calf.

Case History and Clinical Observations

A one day old heifer calf was presented to the clinics with a history of abnormal mass in the right eye. On clinical examination it was found to be attached to the palpebral conjunctivae of lower eyelid with a large number of hairs arising from the surface (Figure 1). The calf was unable to close the eye normally. Blepharospasm was frequently observed as the hairs on the dermoid were irritating the cornea. Epiphora was evident through the matting of hairs below the inferior border of the lower eye lid. However blinking, consensual and photomotor papillary reflexes were intact.



Figure 1: Note the conjunctival dermoid in a cross-bred calf

TREATMENT AND DISCUSSION

The animal was restrained in lateral recumbency. Akinesis of eyelids was achieved by giving auriculopalpebral nerve block and sensory innervations of eye lids were blocked by linear infiltration

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above the margins of the eyelid using 2% lignocaine hydrochloride. The dermoid was removed from the underlying tissue by a wedge shaped resection on the conjunctiva and simple interrupted sutures were applied using with 6-0 chromic catgut. Postoperatively Gentamicin eye drops and hydroxy methyl cellulose eye drops were instilled thrice daily for 5 days. Postoperative recovery was uneventful and reexamination after two months did not reveal any recurrence of dermoid.

Histopathological sections by Hematoxylin & Eosin staining revealed a band of abortive hair follicles and adnexa was identified as haphazardly arranged clusters of epithelium, in the absence of hair bulbs, intermingled with tortuous lumina of apocrine glands beneath the productive follicles (Figure 2).

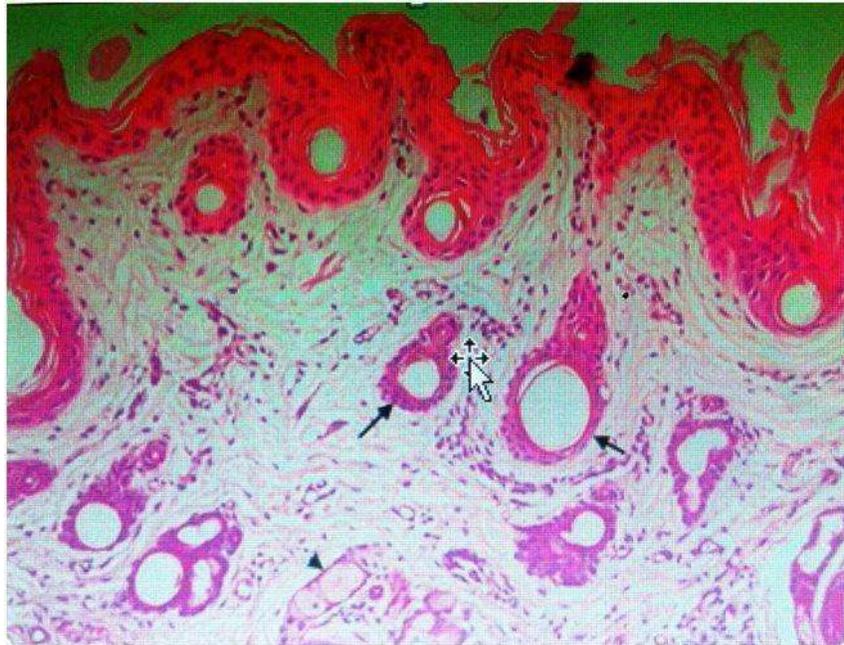


Figure 2: Note the parallel arrangement of abortive hair follicle development characterized by presence of a hair bulb (arrow) and associated apocrine gland (arrow head)

Being a congenital anomaly, dermoid was recorded in different cattle breeds (Ismail, 1994). It is believed to a heritable autosomal recessive and polygenic trait. The dermoid may contain many elements of normal skin such as epidermis, dermis, fat, sebaceous glands, hair follicles and frequently hair. These tissues or hair follicles usually irritate the eye and the animal suffers from chronic epiphora, conjunctivitis or keratitis (Pandey *et al.*, 2011). As the growth in the case did not invaded the eye ball the functional disturbances associated with vision were not observed. Dermoids involving central cornea, third eyelid, canthus and eyelid occasionally occur in cattle and are corrected easily by surgery (Croshaw, 1959). Similarly surgery was simple and easily performed in the present case.

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