

## UNUSUAL CASE OF PENETRATING FISH HOOK IN LATERAL CANTHUS OF A KID

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### ABSTRACT

*A one year old, male, goat was presented with the history of fish hook injury on the right eye during grazing near the pond. On clinical examination, the vital parameters were normal. Ophthalmic examination of right eye revealed fish hook's nylon with its shank at the lateral canthus. Under local anaesthesia, barbed fish hook, penetrating the palpebral conjunctiva was surgically removed after lateral canthotomy.*

**Key words:** Fish hook, ocular injury, goat

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### INTRODUCTION

Ocular fish hook injury is an uncommon event in small ruminants. Ocular injury due to fish hook is relatively rare and the severity is dependent on the involved ocular structures. Trauma caused by fish hooks may involve all structures of the eye including the eyelids, cornea, sclera, anterior chamber and posterior vitreous chamber (Alfaro *et al.*, 2005). These injuries could be associated with subsequent traumatic cataract, vitreous haemorrhage, choroidal haemorrhage, retinal detachment and in certain circumstances can cause endophthalmitis with partial or complete

loss of vision and loss of the eye (Mohan *et al.*, 2014). Treatment of fish hook injuries depends on the location of injury, the involved ocular structures, and the type of hook involved (Purtskhvanidze *et al.*, 2019). Reports of ocular injuries from fish hooks in small ruminants are rare and uncommon in veterinary literature. The present case report describes the surgical treatment for removal of barbed fish hook penetrating the eyelid in a goat.

### CASE PRESENTATION AND DIAGNOSIS

One year old, male, goat was presented with the history of fish hook injury on the right eye during grazing near the pond. On clinical examination, the vital parameters were normal. Ophthalmic examination of right eye revealed fish hook's nylon with its shank at the lateral canthus

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(Fig.1), the point and barb of the fish hook was not visible as it was embedded in the palpebral conjunctiva. Blepharospasm, mild degree of hyperaemia and chemosis were noticed on the right eye. Palpation of the lateral canthus of right eye revealed ocular discomfort. Menace response, papillary light reflex, anterior chamber, cornea, sclera and lens were normal. Left eye had no abnormalities. Plain radiography of the skull revealed barbed fish hook at the lateral canthus with no orbit or periosteal damage (Fig.2).

## TREATMENT

Lignocaine spray (1%) was topically applied over the conjunctiva of the right eyelid. Lateral canthotomy incision of 2 cm was made to expose the palpebral conjunctiva (Fig. 3). The embedded fish hook's barb was gently retrieved without causing damage to the conjunctiva or ocular structures. Then the canthotomy site was thoroughly flushed with 0.9% normal saline. The canthotomy incision was closed using Catgut 2-0 with simple interrupted suture pattern (Fig.4). Inj tetanus toxoid 0.5ml i/m, inj enrofloxacin @ 5 mg/kg b.w. i/m, inj meloxicam @ 0.5 mg/kg b.w.i/m were given. Topical eyedrops 0.3% gatifloxacin, eyedrops hydroxy propyl methylcellulose and eyedrops 0.3% flurbiprofen were advised 1 drop thrice a day for a week. Oral medications tab enrofloxacin @ 5 mg/kg b.w. SID and tab meloxicam @ 0.5 mg/kg b.w. SID were advised for 3 days. Animal had an uneventful recovery without any complications.

## CONCLUSION

Various grasses and awns can penetrate the eye and cause injuries during grazing of goats. There are reports of grass awn induced eye injury in various farm and companion animals like corneal injury in cattle (Fazili *et al.*, 2010), conjunctivitis and ulcerative keratitis in alpacas (Fischer and Hendrix, 2012), keratitis in horses (Pickett *et al.*, 1993), panophthalmitis in dogs (Bussanich and Rootman, 1981), palpebral conjunctivitis in dogs (Marchegiani *et al.*, 2017) and palpebral ocular injury in goats (Mir *et al.*, 2018). The severity of the trauma is dependent on the type of fish hook like barbed or barbless, and the structures involved (Purtskhvanidze *et al.*, 2019). The response of the ocular tissue to the insult is determined by the type, size, composition and location of foreign body (Greven *et al.*, 2000, Ehlers *et al.*, 2008).

In the present case the barbed fish hook had penetrated the palpebral conjunctiva of the right eye was surgically removed after lateral canthotomy.

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**Fig. 1** Fish hook's nylon with its shank at the lateral canthus of right eye



**Fig.2** Ventrodorsal skull radiograph showing barbed fish hook at the lateral canthus of right eye



**Fig. 3** Lateral canthotomy incision of 1 cm was made to expose the palpebral conjunctiva



**Fig.4** Closure of canthotomy incision using catgut 2-0 with simple interrupted suture pattern

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