



AN UNUSUAL CASE OF LOWER EYE LID LACERATION INVOLVING LOWER CANALICULI FOLLOWING DOG-BITE

Ophthalmology

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ABSTRACT

This case report presents a unique ophthalmological case of young male who sustained a lower eye lid laceration following dog bite. On thorough ocular examination, the anterior and posterior segment of eye was within normal limit. A laceration in the left lower lid was noted with involvement of lower canaliculi, for which surgical repair was done with stent placement using 24 gauge cannula, aiming to restore the continuity of the duct and facilitate proper tear drainage. The management of this rare case presentation of dog bite induced injury involving lower canaliculi is discussed, along with patient's post operative outcome.

KEYWORDS

Case Report



Figure 1 On the day of Presentation

A 19-year-old male presented to the ophthalmology emergency department following a dog bite to his left lower lid, on the medial aspect. On examination, the patient had a 2 cm*5mm*5mm sized laceration involving the medial canthal area, with active bleeding and signs of injury to the canalicular duct. The patient complained of epiphora (excessive tearing) from the affected eye. Visual acuity was within normal limits, and there were no signs of significant ocular injury apart from the lid laceration.

Management



Figure 2 Lid laceration with canalicular duct injury

The patient was diagnosed with a left lower lid laceration with lower canalicular duct injury.

The patient was managed conservatively initially with Rabies immunoglobulin, Anti-rabies vaccine (ARV), Inj. Tetanus Toxoid, and oral antibiotic, oral analgesic, oral anti fibrinolytic agent and antibiotic drop and ointment for local application.



Figure 3 Canalicular stent placement



Figure 4 Immediate post op picture

The patient was taken to the operating room for repair. After local anesthesia, the wound was carefully explored to assess the extent of injury to the surrounding tissues, including the canalicular duct. A 24-gauge cannula was introduced as canalicular stent in affected lower canalicular duct. Syringing revealed full patency after the stent placement. The stent was fixed with the lower lid to avoid expulsion of the stent and irritation on the corneal surface. Primary repair of the left lower lid laceration was then performed meticulously to ensure optimal wound closure and alignment.

Outcome

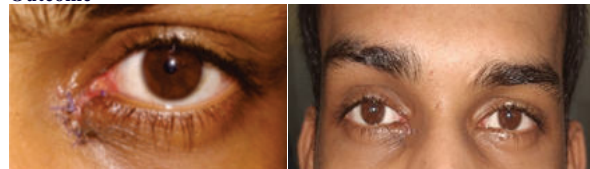


Figure 5 At 2 week follow up

Figure 6 At 4 week follow up

The postoperative period was uneventful, with no signs of infection or wound dehiscence observed. The patient's epiphora gradually improved over the following weeks, and his visual acuity remained unaffected. A follow-up visit at two and four weeks post-surgery showed excellent cosmetic and functional outcomes, with the patient experiencing no tearing and a well-healed lower lid and medial canthal region.

DISCUSSION

Lower eyelid lacerations with canalicular duct injury due to dog bite are relatively rare, and early recognition and appropriate management are essential to prevent long-term complications such as chronic epiphora or lacrimal drainage system dysfunction. The use of a 24-gauge cannula as canalicular stent, followed by plastic repair of the lower lid laceration, facilitated to restore the continuity of the duct and proper tear drainage. This case highlights the importance of a thorough examination and a multidisciplinary approach in managing complex ophthalmic injuries.

CONCLUSION

Lower eyelid lacerations with canalicular duct injury due to dog bite, though rare, require prompt evaluation and surgical repair to prevent potential complications and optimize patient outcomes. A thorough understanding of the anatomy and careful surgical technique are vital in managing such cases effectively. This case report adds to the existing literature on the management of ophthalmic injuries and emphasizes the importance of interdisciplinary collaboration in providing comprehensive patient care.

Informed Consent

Written informed consent was obtained from the patient for the

publication of this case report and any accompanying images. Confidentiality has been maintained in accordance with institutional guidelines.

Conflict of Interest : Nil

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