



Eyelid Laceration Secondary to Domestic Dog Bite: A Case Report

Dr Vinitkumar Mahajani ^{1,3} Dr Snehal Sampatrao Pakhare ² Prathmesh Yadav ⁴

¹Ophthalmologist, Sagarmatha Choudhary Eye Hospital, (SCEH), Lahan, Siraha

²MS (Shalakya tantra), Yashwant Ayurvedic Medical College, Kodoli, Dist: Kolhapur,
State: Maharashtra (India)

³Pediatric Ophthalmologist, (SCEH), Lahan

⁴BSc Clinical Optometry, Bharti Vidhyaapeeth College of Optometry (Sangli –Miraj Road),
Miraj . Maharashtra, India

***Corresponding to:** Dr Vinitkumar Mahajani , Ophthalmologist
Sagarmatha Choudhary Eye Hospital, (SCEH), Lahan, Siraha.

E-mail: vinitkumarmahajani@gmail.com

ORCID ID : <https://orcid.org/0000-0003-4170-0954>

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ABSTRACT:

Background: Domestic dog bites are most common up to 90% and can exert influence on victims of incompatible age group from children to the old age people. Other attackers include donkey, monkey, cats and horses. The dog bite injuries are commonly located in unlike body area consist head, neck and face. Management plan after dog bite includes tetanus, anti rabies vaccination with suturing the wound and broad spectrum antibiotic cover.

Case report: A 9 year old male child came to our casualty room with a alleged history of domestic dog bite. Child had several and large scale lesion on face, laceration of left lower eyelid with tissue loss.

Conclusion: In our case study a child patient is victim of dog bite with injury limited to face. Primary management of lid laceration is by means of emergency suturing the wound in layers along with canalicular repair with or without stent. Secondary management is with vaccination and antibiotic cover. The child was followed up after one month show good cosmesis without any complication.

Keywords: Bite, Dog, Eyelid, Injury, Laceration, Wound

INTRODUCTION:

The prospective source of animal related slash or injury in humans are dogs and they are also frequent with household pet animal .Eye injury is the major source of mono ocular visual morbidity, disability and blindness.^{1,2} Nearly all ocular injuries take place in developing countries.³ Published literature announce that young children are more endangered to ocular trauma.⁴ The animal bite is a proportional persistent health problem all around world.⁵ The main

cause is domestic dogs accountable for throughout 90% of cases. The other common animals consist cats, cows, donkey and horses.^{6,7}

CASE REPORT:

A 9 year old male child came to the emergency room with 4 hours history of dog bite to left eye while playing with domestic dogs. On examination left lower eyelid complete canalicular tear with 50% eyelid laceration with tissue loss was found. Anterior segment examination revealed a 5mm x 3mm central corneal epithelial defect. Visual acuity in left eye was 6/60 and 6/6 in right eye by Snellen's chart. The wound was copiously cleanse with normal saline and spray with 5% betadine solution. Intramuscular anti rabies vaccination was given along with 10 IU/kg anti rabies immunoglobulin was injected around the wound due to grade III injury. Intramuscular tetanus toxoid injection 0.5 ml was given. Systemic antibiotics for gram positive, gram negative and anaerobic flora were given. Eye was patched for 24 hours with topical antibiotic ointment and cycloplegic eye drop. Due to heavy lid inflammation and swelling surgery was posted on fifth day once the signs of healing were noted. Consent and pre anesthetic fitness was taken. Nil by mouth or nil per oral 8 hours before surgery was advice to hospital nurse and patient relatives.

Left lower eyelid laceration without Mini monoka or aural stent was done. Three layer suturing (sub orbicularis plane, muscular , skin) and end to end anastomosis with 6-0 vicryl were done.

A



B



Photograph A and B shows initial presentation with 50% lower lid tear, marked swelling along with tissue loss.

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C



D



Colored photograph C and D shows post operative day 2 picture wound closed with 6-0 vicryl with mild swelling ,epiphora and odema. Child was unable to open eye.

E



Photograph E shows one month post operative picture with good cosmesis with scar mark

DISCUSSION:

Ocular trauma due to dog bite are unusual.^{8,9} These eye injury give strength in the area of ocular adenexa and eyelids due to blink reflex carry the impact of dog bite injury. As we know dog bite induced eye injuries are not common, they are mostly found in children than in adult patient.¹⁰ Complete eyelid loss or total canalicular laceration subordinate to dog bite injury is very rare. Animal bite trauma or wound to ocular area is classified in grade III category injury. These injuries are mostly infected by different micro organisms and cause high possibility of local infection as well as rabies.¹¹ To avoid infection of the wound it should be washed carefully to pull out any foreign body with copious saline and antiseptic liquid like 5% (Betadine) povidone iodine.¹² Management of a patient with dog bite consist systemic antibiotics, local ointment, anti rabies vaccination with immunoglobulin injection locally. Function of the lower punctum along with canalicular system which help in spreading the tear film and maintain lacrimal pump mechanism patent. This pump apparatus protect the eye from dust, foreign body and also helpful

in spreading the tear film.¹³ When there is laceration of the lower eyelid along with canaliculus the all above mentioned function are hold up which can lead to epiphora.¹⁴ Young children's are more likely to experience facial dog bites that result in ocular injury. One study found that 45.2% of children with dog bites had ocular injury vs 10.8% of the adults.¹⁵ Total eyelid loss results in high risk of complication and poor prognosis.¹⁶

CONCLUSION:

Early eyelid or canalicular repair is essential to avoid all above complication.

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Informed consent: was taken from patient and parents.

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