

Brief Communication

Excellent Healing after Severe Lid Injury by a Bird

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ABSTRACT

Eye lid lacerations secondary to penetrating trauma is quite common. Most of the injuries occur due to animal bites, falls and collision with sharp objects. They may lead to partial or full thickness lid defects. We report a case of middle aged woman who was attacked by bird claws and sustained severe upper lid laceration that was immediately thoroughly investigated and then managed surgically resulting in excellent wound healing. Ocular trauma from bird pecking injury can cause blindness in humans. The public should guard against feeding and keeping close with them. If immediate medical attention is given by the ophthalmologist and urgent primary repair is done there are high chances to save the eye from disastrous complications.

Key Words: Lid laceration, ocular trauma, penetrating injury.

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INTRODUCTION

Though, birds are generally harmless creatures but if provoked can be extremely dangerous, or show aggressive behavior when in state of hunger or breeding. They can easily cause harm to their prey using their sharp weapons that are claws, and beak.¹

Here we highlight a case where a middle-aged woman was attacked by a kite (Cheel), and sustained severe upper lid damage that was immediately repaired and followed up with excellent healing. Reconstructing and initial management of eye lid lacerations has always been very challenging for the ophthalmologists due to its profuse blood supply thus preventing scar tissue formation is very essential for good cosmetic outcome.

CASE PRESENTATION

A 55 years old woman presented to us in the emergency department of a tertiary care hospital with complaints of profuse bleeding from her left eye and severe pain that was unbearable for half hour. On enquiry, she said that she was heading back home by foot after grocery shopping, she held in her hand shoppers containing meat and vegetables. Suddenly, she noticed few kites that were hovering over her head, when one large bird tried to snatch the shopper from her hand. On a glimpse of a second the bird attacked her left eye with its claws and left her injured. She was immediately brought to the hospital. After giving her first aid including anti-tetanus prophylaxis and hemostasis, her eye was examined completely.

On Examination, there were superficial and deep lacerations involving the subcutaneous tissue, orbicularis muscle, tarsus and conjunctiva of X and T shape, involving full length of her left upper eyelid with irregular margins and ragged edges as shown in Fig. 1. There were also bruises and scratches on the surrounding skin with edema of the lids. Her vision was 20/20 with no anterior or posterior segment findings. Her intraocular pressure was normal, and

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extraocular movements were full. Her right eye was 20/20 with normal examination. The patient was admitted for immediate surgery. She was given systemic antibiotics to prevent septicemia and systemic analgesics. After general examination, anesthetic fitness and all aseptic measures, she was operated under general anesthesia, her wound was copiously irrigated and any foreign body was removed, her wound was repaired layer by layer attempting the deeper tissues first. The orbital septum was carefully avoided in the repair process.

Primary repair of the posterior lamellae was done then the anterior lamella was professionally approximated and sutured with 6/0 Prolene sutures shown in Fig. 2.



Figure 1: Trauma to the Left Eyelid by Kite.



Figure 2: Early Post-operative.

Post operatively, oral antibiotics and analgesics were advised with proper cleaning of lid instructions with Pyodine and the patient was discharged. On follow up one week later, there was no pain, edema and discharge. Her wound was examined and sutures removed. On follow-up of 6 weeks, there was excellent recovery and rapid wound healing as shown in Fig. 3.



Figure 3: Late Post-operative Picture Showing Excellent Healing.

DISCUSSION

There are very few cases reported of bird related traumas to human eye. Literature review shows that there are few cases of bird trauma causing penetrating ocular injuries affecting the vision with disastrous complications involving anterior and posterior segment.² On comprehensive reviews of the pertinent literature in the past involving human eye related injuries by birds, it has been reported by Duke-Elder et al. and Kühlpad Collin that most human eye bird injuries are caused by owls, chicken and roosters. They found that attacks occur more commonly in the spring season, in their breeding time. The type of injury varied depending on the type of bird and shape of the beak. Curved beak/claws injuries result in perforating corneal, scleral wounds leading to severe intraocular damage with poor prognosis. In contrast, birds with sharp straight beaks most likely cause clean corneal perforating injuries with preferably less intraocular damage and better visual prognosis.³ The face and eyes appear to be favored sites of a birds attack. Possibly cornea, due to its color, shape and

reflection of light, comparable to the rest of the face, becomes the target of attention.⁴

Our patient was attacked by The Black Kite (Cheel), which is a medium to large-sized, predator that is considered to be the most successful raptor in the world. There are previous reports where kites aggressively snatch food from humans due to the presence of close proximity of their nests to human colonies. Physical attacks depend on human activities such as unhygienic waste disposal near their nests, feeding of kites (practiced by some Muslims), increasing human population near their breeding areas, and presence of a balcony near the nest, suggestive of an association between kite's aggressive behavior and frequent-close exposure to humans.⁵ These large birds can cause ocular and periocular damage to variable extents. According to a study, traumatic endophthalmitis was seen in 7% of penetrating ocular injuries. There is also a case report where an open globe injury was sustained leading to traumatic endophthalmitis following crane pecking injury in a twelve year old boy. In bird beak injuries, delay in immediate management can lead to deleterious effects on the anatomical and functional outcome.⁶ Commonly affected population is the pediatric age group. High pecking impact can cause blindness.⁷

Our patient sustained severe lid trauma that was immediately brought into attention of the ophthalmologist in the tertiary care hospital where the lesion was perfectly approximated and closed using Prolene sutures. Full understanding of the anatomy and vascular supply of the lid and periorbital structures play a crucial role in the repair and healing process. Proper planning of the technique of lid repair in the early period prevents excessive tissue loss, leaving no apparent scar mark.⁸

There are certain principles of lid repair that need to be followed in order to attain good functional and cosmetic outcome. Depending on the lamellae involved, repairing should be done layer by layer attempting the deeper tissues first.⁹

CONCLUSION

Mass awareness is needed to avoid such preventable injuries caused by birds. If they happen, immediate repair can lead to better results of surgery.

Conflict of Interest

None.

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Authors' Designation and Contribution

Tanveer Chaudhry; Consultant Ophthalmologist: *Concepts, Design, Data Acquisition, Data Analysis, Statistical Analysis, Manuscript Editing, Manuscript Review.*

Nida Shamim; Consultant Ophthalmologist: *Design, Literature Search, Data Acquisition, Manuscript Preparation, Manuscript Editing.*

