Case Report

An Unusual Case of Penetrating Ocular Trauma Caused by an Eagle's Claw

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Abstract *We report the second case of penetrating ocular trauma caused by injury with an eagle's claw. The patient developed a full thickness corneal tear which was sutured. Patient had a good visual recovery.*

Delhi J Ophthalmol 2021;31; 98 - 99; Doi http://dx.doi.org/10.7869/djo.668

Keywords: *Ocular Injury, Eagle Claw*

Introduction

One may feel that injuries caused by the attack of birds are uncommon, as birds usually take flight when they see humans approaching. But this is not the case always. When threatened by humans, birds attack back in defense.[1] This is true especially for birds of prey e.g. eagle. There have been many cases of open-globe injuries caused by the attack of other birds.[2,3,4] However, despite of extensive search we could find only one case of ocular injury caused by eagle claw.[5] Hence we present an unusual case of penetrating ocular trauma caused by the attack of eagle claw.

Case Report

A 75 year old male presented to the emergency with injury to the right eye by an eagle claw. The patient reported that he had climbed the coconut tree to pluck coconuts, and was attacked by an eagle which was resting on a branch. The attack was with the eagle's claw. The patient gave a history of sudden severe pain in the right eye and a sensation of gush of warm fluid from his eye. He complained of sudden painful diminution of vision in the affected eye. There was no history of bleeding from the eye.

On examination there was a full- thickness, linear, horizontal corneal tear measuring 8 millimeters. There was no evidence of iris tissue or vitreous incarceration in the wound. The anterior chamber was irregularly shallow (Figure 1). There was evidence of senile immature cataract in both eyes.

There was no other abnormality detected in the left eye. The best corrected visual acuity in the right eye was counting fingers close to face and that in the left eye was 6/60, measured using Snellen's distance vision chart at 6 meters. At this stage B-Scan ultrasonography was not done considering the shallow anterior chamber and low intraocular pressure.

The patient was taken up for primary repair of the corneal tear on an emergency basis. The wound was thoroughly irrigated. The corneal tear was sutured using 10-0 Nylon suture material and the anterior chamber was reformed using balanced salt solution. Subconjunctival gentamicin and dexamethasone was given before padding the eye (Figure 2) The patient was started on intravenous cefotaxime 1gram 12 hourly and metronidazole 400 milligrams 8 hourly.

On the first post-operative day the wound was well apposed and the anterior chamber was well-formed (Figure 3). The

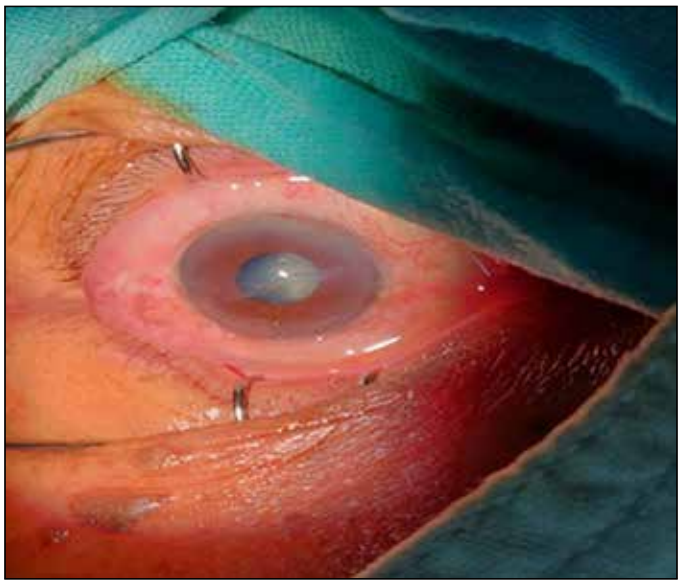

Figure 1 : *Pre-operative image*

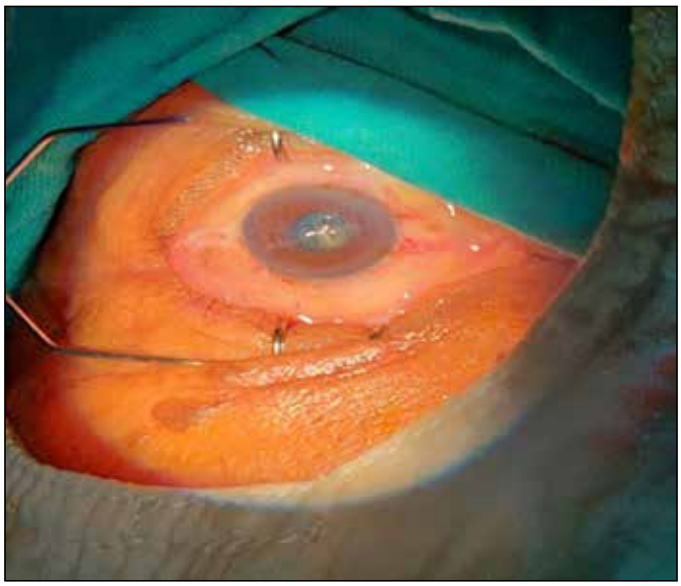

Figure 2 : *immediate post-operative image*

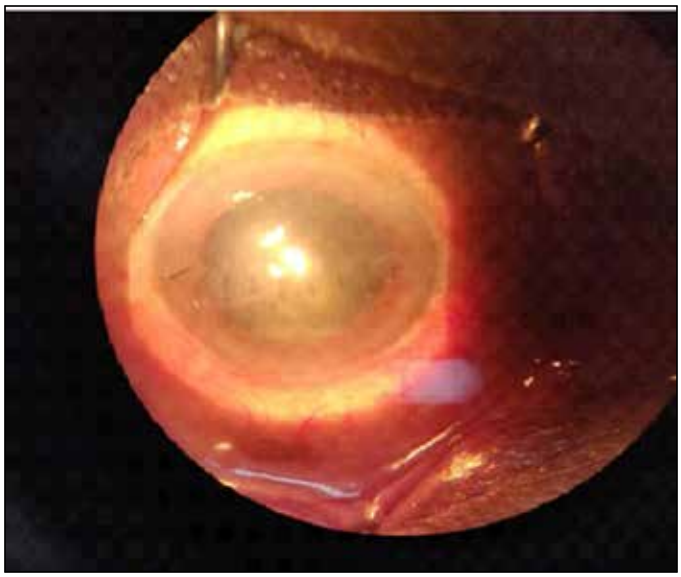

Figure 3 *: Day 1 post-operative image*

visual acuity was 6/60 using Snellen's distance vision chart. Topical antibiotic-steroid combination with homatropine eye-drops was started. B-Scan ultrasonography was done at this stage and showed a normal posterior segment with no evidence of endophthalmitis or retinal detachment.

The patient was followed up for a period of 3 months. At every visit vision, slit-lamp examination, indirect ophthalmoscopy and B-Scan ultrasonography was done. The patient recovered well and had a visual acuity of 6/12.

Discussion

Ocular injuries caused by the attack of birds are not rare. A study done in Iran reported 30 cases of ocular injuries from 2010-2015.1 Another similar study by Kuhl6 reported 14 such cases during the time period from 1875-1970.

There have been cases of ocular injuries caused by other birds such as rooster, sparrow[7] and ostrich. However only one case of ocular trauma caused by an eagle's claw reported from Germany could be found in the literature search. No such cases could be found from India.

Most ocular injuries caused by birds are a result of pecking by the beak. Such injuries usually result in penetrating trauma and often lead to permanent visual deficit.

Hence there is a need to manage such injuries with utmost care. Primary repair of the wound should be done at the earliest. Any iris tissue and incarceration of vitreous in the wound should be tackled carefully with iris abscission and anterior vitrectomy. Systemic antibiotics in the peri-operative period helps prevent infection. Ocular injuries caused by birds often lead to endophthalmitis, and hence the treating doctor should keep a close watch for the signs and symptoms of endophthalmitis, and B-Scan ultrasonography should be repeated at every follow up. In cases where there is development of endophthalmitis; intravitreal antibiotics should be given at the earliest. In severe cases vitrectomy may be needed to treat the infection. Baskaran P et al[8] and Lekse AJ et al individually reported cases of endophthalmitis following penetrating ocular trauma secondary to bird pecks.

Conclusion

This is by far the second case of penetrating ocular trauma caused by an eagle's claw reported. Cases like these need to be treated at the earliest with primary repair and steps to prevent infection so that permanent visual defect can be prevented

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Cite This Article as: , Tanvi Poy Raiturcar, Noopur Nayak Shinkre, Ugam P.S Usgaonkar, An Unusual Case Of Penetrating Ocular Trauma Caused by an Eagle's Claw, Delhi J Of Ophthalmology. 2021; Vol 31,No (4): 98 - 99.

Acknowledgments: Nil

Conflict of interest: None declared

Source of Funding: None

Date of Submission: 25 Jun 2020
Date of Acceptance: 03 Aug 2020

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