IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)
e-ISSN: 2279-0853, p-ISSN: 2279-0861.Volume 23, Issue 5 Ser. 11 (May. 2024), PP 22-23
www.iosrjournals.org

The Finch Or The Eyelash- A Masquerading Eye Trauma Case Report

Manmeet Singh[1], Madhuri Venigalla[1]
Department Of Cornea & Refractive Services, Sankara Eye Hospital, Guntur, Andhra Pradesh

Abstract
Purpose*: To understand the importance of point of entry in a finch wire trauma case in its case based approach. A 28-year-old male came to our emergency with alleged history of trauma with finch wire while working to his right eye which was followed by diminution of vision. On examination, in this first instance it mimicked like an eyelash in anterior chamber but after thorough slit lamp examination, with 1x1 mm high magnification revealed the presence of an unknown foreign object mimicking a finch wire. Ultrasound B-scan was done and was normal in study. Plan was briefed for its surgical removal and was done successfully restoring the patient's vision with a prophylactic suture as well. Careful examination and a few simple mathematical concepts were handy to remove this wire.*
Keywords: *Wire, Finch, Eyelash, Masquerade*

Date of Submission: 21-05-2024 Date of Acceptance: 31-05-2024

I. Introduction:

Penetrating/perforating eye injuries caused by rotating wire brushes are sight threatening that can be prevented. Rotating brushes are used to remove rust from the parts of different items in the mechanical workshops and to clean rusty metal sheets before painting.[1]

Therefore, this rare case of penetrating injury of left eye caused by a steel wire which mimicked the beak of a finch bird is reported. To the best of author's knowledge, this is the first case report which describes the self-sealed entry point caused by a finch wire till date.

II. Case Report

A 28-year-old male came to our emergency with alleged history of trauma with finch wire while working to his right eye which was followed by diminution of vision. On examination, the uncorrected visual acuity was 6/18 with pin-hole (pH) improving to 6/6 and the other eye, best corrected visual acuity was 6/6. At first instance it mimicked like an eyelash (Fig-1) in anterior chamber but after thorough slit lamp examination, with 1x1 mm high magnification revealed the presence of an unknown foreign object mimicking a finch wire. Ultrasound B-scan was done and was normal in study. The tipoff the wire was mimicking the beak of a Finch of similar measurement of a 30 gauge needle which is too self-sealing properties. And we observed similar masquerade by its entry point, as the anterior chamber was well maintained and siedel's test was negative. A small part of endothelial touch could be seen when its tip travelled from 6 0'clock from entry (black arrow at point 1) touching the endothelium white arrow at point 2) penetrating the iris causing peaking (at point 3) and finally rests at 11 o'clock in his right eye (point 4). Sometimes, even the trauma cases involves bit of high school mathematics, as in this case we just decided to complete the circle in a fashion to enter from 11o'clock (at point 4) and pull it in a circular fashion while anterior chamber being fully maintained using visco-elastics and the wire was removed amicably using this simple technique (Fig-2). Intra-cameral antibiotic was injected and one 10-0 Nylon prophylactic suture was placed for better wound integrity.

Post-operatively, the patient was started on topical steroids 6 times per day and was followed up after 1 month with his best corrected visual acuity being 6/6.

III. Discussion

Any structure in the eye can be involved in patients with ocular trauma. It is essential for all the ophthalmologists to use standard terms for eye injuries which conveys single interpretation without any ambiguity.

In three patients reported by Hassett and Cleary, [2] one patient had corneal perforation, traumatic cataract, and damage to iris sphincter; another patient had full thickness corneal wound; and third patient had corneal perforation, iris wound, traumatic cataract with posterior capsule tear. Hod and Geyer[3] reported three

cases and in all of them the wire brush penetrated the cornea, iris, and lens; in one case endophthalmitis developed.

Retinal examination is utmost in all trauma cases to rule out any posterior segment involvement. In our case, no traumatic cataract or any vitreous disturbance happened bringing good post-operative visual acuity.

IV. Conclusion

Ocular trauma caused by rotating wire brush fragments can result in penetrating/perforating injury to cornea/sclera, retained inraocualr foreign body, traumatic cataract, injury to iris, and endophthalmitis. Therefore, detailed examination of the eye and radiological evaluation for intraocular foreign body are essential in these cases. Appropriate medical and surgical treatment should be given in-time to save the vision in these eyes. Take home message is careful examination and a few simple mathematical concepts were handy to remove this wire. Protective eye-wire is essential to save one's eye from work related ocular injuries.

References

[1] Reddy Sc. Penetrating Ocular Trauma Caused By Steel Wire From A Rotating Wire Brush: A Case Report With Review Of Literature. Eur J Med Health Sci 2021;3:49–52.
[2] Hassett P, Cleary Pe. Serious Eye Injuries Caused By Rotating Wire Brushes. Br J Ophthalmol 1994;78:491.
[3] Hod Y, Geyer O. Eye Injuries Caused By Rotating Wire Brushes. Harefuah 2005;144:239–40, 304.

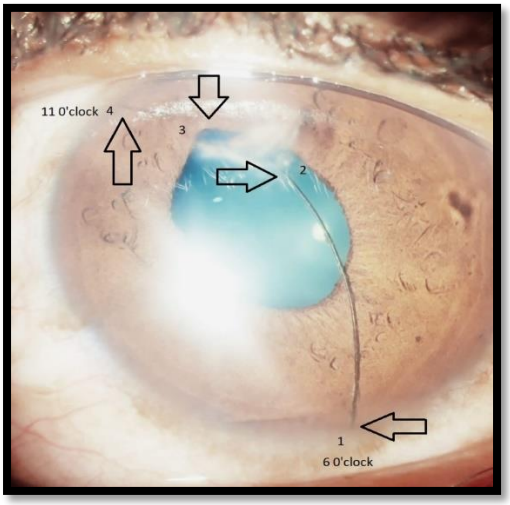

Fig-1 shows iron wire penetrating from 6 o'clock

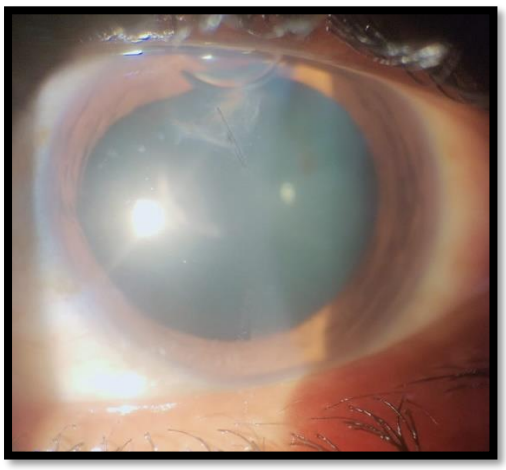

Fig -2 shows 10-0 Nylon Suture with well formed anterior chamber