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OPHTHALMOLOGY
Case Report

The Management with the Retro Grade Method of the Injury of Upper Eyelid Due To the Hook of Fishing Rod

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Abstract

The fishing is a common activity well known. However, it should be considered that fishers are at a great risk for sticking of its hook on the eye or lids while the rod is retracted to attach the feed or during it launches to water. A 29 years old man was presented to our clinic with sticking the hook of a fishing rod to his upper eyelid. Ophthalmological examination revealed that eyeball was not affected from injury and the hook was removed under local anaesthesia using the retrograde technique. Any postoperative complication was not observed. In this case report, we recommend the fishers or peoples that interested in this activity to be wearing protective glasses.

Keywords: *Fishing rod; fishhook; eyelid injury; removal; retrograde technique*

Introduction

The fishing is an activity carried out for the purpose of commercial or hobby enjoyed by many people. Fishing with a rod and hook is the most common way. There are no particular precautions, or warnings for amateur fishers; it should be kept in mind some possible complications related to this sport. In particular, it should be remembered that fishers are at a great risk for severe ocular injury when casting the hook from the riverbank or grasping it to add food. Although ophthalmic injury is limited by a simple skin injury, it can be very dangerous, if the hook punctures the eyelid or the eyeball [1-3]. We report a case of fish hook injury to the upper eyelid and the removal method of fish hook.

Case Report

A 29 years old man was presented to our clinic with sticking the hook of a fishing rod to his upper eyelid. To his story, the hook has been accidentally stuck to his upper eyelid during the casting of the hook of fishing rod. The patient did not attempt any intervention for the removal of the hook. He had just cut fishing line. It was observed that the hook partially stuck the upper eyelid at 3 mm behind the ciliated edge and moved along approximately 10 mm in parallel to the ciliated edge of the upper eyelid penetrated to superficial fibers of orbicular is oculi muscle (Figure 1). There was no full thickness defect at upper eyelid, the conjunctiva was intact. Ophthalmological examination revealed that eyeball was not affected from injury. His best corrected visual acuity is 20/20 in both eyes. Intraocular pressures of both eyes were in normal range. Slit-lamp biomicroscopy revealed no pathological anterior segment sign. Fundus examinations were normal. The hook was removed under local anaesthesia using the retrograde technique. Following local anaesthesia, a smooth incision along the travel line of hook in eyelid was created out to explore the anchor of the hook. A blunt dissection was performed and the anchor was separated from the surrounding tissue. Then the hook was removed slowly and carefully (Figure 2). The incision line at upper eyelid was sutured 6/0 vicryll (Figure 3). A tetanus vaccination was not considered because the patient has tetanus protection and any systemically antibiotic was not given. An eye ointment, including antibiotic was applied. Any postoperative complication was not observed. The follow-up visits were not possible because he could not come from the city which he lives.

Figure 1: *The appearance of upper eyelid injury at the first presentation.*

Figure 2: *The hook with one barb which removed from the upper eyelid.*

Figure 3: *The appearance of upper eyelid injury after surgical removal of the hook.*

Discussion

Fishing is a popular activity with sportive or commercial purposes in many countries. Non-penetrating ocular injuries due to the hook of the fishing rod is reported in a small number because the extraction process is made by the patient himself. Although fishhook injuries to the eyelid do not threat the vision, appropriate removal techniques should be applied to avoid significant damage to the eyelid anatomy.

In the medical literature, several techniques for the removal of fish hooks in penetrating eyelid injury have been described [1-3]. In Back-out or retrograde method, the hook is removed by simply pulling backwards from the entrance wound. Although technically simple, it is primarily useful for only barbless hooks. If hook has the barb, this removal procedure can cause more ocular damage [3-5]. Snatch method is a modification of the retrograde method. It is used to diminish pain during the removal procedure in the eyelids. In this method, downward pressure is applied to the hook shank and the hook is quickly removed [3-5]. In Advance and Cut method, the hook shank is grasped firmly and rotated to create a new exit site for the tip and then a controlled surgical incision is created. The hook is pushed forward until the tip and barb are outside the eye. Subsequently, sterile wire cutters are used to cut the hook at a location between the barb and the bend [3-5].

In the cases with eyelid fishhook injury, radiographic evaluation should be performed for the detection of the presence of barb, because the hook with the barb is more dangerous for ocular tissues. We did not consider performing radiologic evaluation because our case gave the information to us that the hook has only one barb [3-5]. The hook can be successfully removed with minimal trauma to ocular structures using an appropriate method. Thus, it is very vital to understand the parts of the fishhook before its removal. Although single barbs/anchors are common, they may have multiple barbs (Figure 4). It is difficult to the removal of the ones having multiple barbs. If there is no severe ocular injury and if the barb is not too large, retrograde method seems as a good method in the removal of both hooks with barb and barbless hooks.

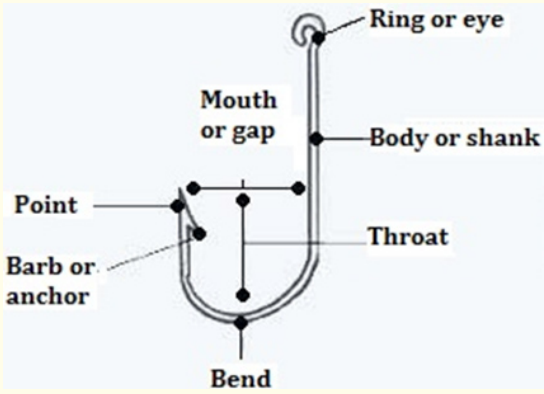

Figure 4: *The structure and parts of fish-hook.*

Conclusion

The fishers are at a great risk for sticking of the hook of fish rod on the eye or lids when the rod is retracted to attach the feed or during hook launches to water, they should wear protective eye glasses similar to those used in the operating room during fishing activities.

Conflict of Interest

The authors certify have NO affiliations with or involvement in any organization or entity with any financial interest (such as honoraria; educational grants; participation in speakers' bureaus; membership, employment, consultancies, stock ownership, or other equity interest; and expert testimony or patent-licensing arrangements), or non-financial interest (such as personal or professional relationships, affiliations, knowledge or beliefs).

Patient Consent

The patient has consented to the submission of the paper to the journal.

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