Case Report

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Penetrating Corneal Fish-Hook Injury

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Key Words

Corneal perforation

Fish-hook injury

Abstract

A healthy 13-year-old female was struck in the left eye by a fish-hook while fishing. The fish-hook penetrated the cornea, passed the anterior chamber and exited from a second corneal site near the limbus. The fish-hook was removed by cutting its shank and pushing it out of the wounds. Visual acuity was 20/20 OS after surgery. Mild corneal scarring was present at the penetration sites. We would like to report this case because there is a limited number of patients with penetrating corneal fish-hook injuries and this case presents the only female patient in the ophthalmological literature who suffered corneal fishhook injury.

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Introduction

Fishing is a worldwide pastime enjoyed by millions of people, and a number of associated personal injuries are probably inevitable. Fish-hook injuries commonly occur in the skin and most frequently involve the fingers or hands. Fishing-related eye injuries may occur in the eyelids or cause corneal laceration. However there are only a few cases of penetrating ocular fish-hook injuries published to date [1-5].

We report a case of isolated penetrating corneal injury caused by a fish-hook that was successfully removed and discuss it in the light of the reviewed literature.

The fish-hook entered the cornea, passed the anterior chamber and exited from a second corneal site (fig. 2). The barb was located in the shallow anterior chamber that showed minimal cells and small bleeding. No posterior segment, iris and lens injuries were present.

The patient was taken to the operating room the same day. The fish-hook was delivered through the exit site: wire cutters were used to cut the fish-hook's shank; it was then removed by pushing it out of the wounds, while the patient was under general anaesthesia. Both corneal wounds were closed with 10-0 nylon corneal sutures, which were removed when healing was complete. Tetanus prophylaxis was given.

Cultures of neither the fish-hook nor the cornea at the perforation site showed bacterial growth. Visual acuity was 20/20 OS after surgery. Mild corneal scarring was present at the last examination 1 year later.

Case Report

In July 1992, a healthy 13-year-old female was struck in the left eye by a fish-hook while fishing. On examination, visual acuity was LE 20/60. The fish-hook had penetrated the cornea (fig. 1) , traversed the

Discussion

Perforating ocular fish-hook injuries are a rare and potentially devastating trauma. To our knowledge, 10 cases of penetrating ocular fish-hook injury have been previous-

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Fig. 1. The fish-hook penetrating the cornea.

Fig. 2. The corneal entry and exit sites.

ly published in the medical literature , and all of them were young men [1-5]. In contrast, this case is female.

Anterior segment damage that involves the cornea, iris and lens structures is most commonly encountered in penetrating fish-hook injuries. In this case an isolated corneal perforating injury was present. Aiello et al. [3] have reported one such case.

Several techniques for the removal of fish-hooks embedded in ocular tissues have been reported in the ophthalmology literature [2-5]. The advance-and-cut method described by Aiello et al. [3] is the most useful technique for anterior-segment fish-hook injuries. Advantages of the advance-and-cut method include a surgically controlled second wound, no enlargement of the primary wound and minimal traumatic manipulation. This simple, effective technique was used to remove the fish-hook that had penetrated the cornea. Postoperatively, visual acuity was 20/20 without correction in this case.

Although fish-hook injuries cause a devastating trauma in the eye, they have been provided a good prognosis when the useful technique is applied as described above. However, protective eye wear such as sunglasses may be recommended for protection against ocular fish-hook injuries when fishing.

References

Bartholomew RS, MacDonald M: Fish-hook injuries of the eye. Br J Ophthalmol 1980;64: 531-533.

Aiello LP, Iwamoto M, Guyer DR: Penetrating ocular fish-hook injuries. Ophthalmology 1992;99:862-866.

Aiello LP, Iwamoto M, Taylor HR: Perforating ocular fish-hook injuries. Arch Ophthalmol 1992;110:1316.

Mandelcorn MS, Crichton A: Fish-hook removal from vitreous and retina. Arch Ophthalmol 1989;107:493.

Grand GM, Lobes LA: Technique for removing a fishhook from the posterior segment of the eye. Arch Ophthalmol 1980;98:152-153.