Penetrating Corneal Fish-Hook Injury

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Key Words
Corneal perforation
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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 of 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 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 core-nal 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 side 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 corneal (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 previously 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.

Fig. 1. The fish-hook penetrating the cornea.
Fig. 2. The corneal entry and exit sites.

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