Fish Hook Injury

Dr Elizabeth Sonu John DO, Dr Anjana Krishnan DO, Dr Thomas George MS DOMS

Fishing is one of the major occupations in coastal Kerala. There are many inevitable injuries associated with fishing. We report here a case of fish hook injury.

A 17-year-old male presented to our casualty with history of injury to his right eyelid with a fish hook. The injury occurred while he was fly fishing in the sea and had not attempted to remove the hook as it was in the eye.

On ocular examination, vision was 6/6 in the right eye. The fish hook had pierced the lateral part of the upper eyelid 3mm above the lid margin and the tip could be palpated just below the eyebrow subcutaneously [Fig 1a and b]. There was no eyeball injury. Left eye was within normal limits.

Xylocaine 2% was locally infiltrated. Under aseptic precaution the fish hook was held firmly and pushed superiorly towards the skin. A small incision was made with No.11 blade where the tip of the fish hook was felt (Fig. 2). The fish hook was pushed out through this incision with minimum trauma [Fig. 2]. The hook was very thick at least 14G [Fig. 3]. As the wound was small there was no need for suturing. Inj. TT and broad spectrum antibiotics were given.

Discussion

Ocular fish hook injury is a potentially blinding form of ocular trauma. It is common especially with fly fishing. Although fish hook injury to the eyelid is not sight threatening, it is important to remove the fish hook in the right way to prevent damage to the eyelid. Fish hooks are of different types as some may be single barbed or with multiple barbs hence it is important to...
know the type of fish hook that caused the injury before trying to remove it. Hence it is important to obtain the details from the patient or bystander regarding the shape and size and tip of the hook.

Four techniques have been described to remove fish hook from the non ocular tissue in medical literature. Any of these can be employed in removing the fish hook from the eye in accordance with each case. Their advantages and drawbacks as well as use in ophthalmic injuries are detailed below.

1. The Back out method – refers to backing the hook out through its entrance wound. Although technically simple, it is primarily useful for barbless hooks. If a barb is present and engaged in ocular tissue, the method can cause excessive damage.

2. Snatch technique – is a modification of the back out method, where downward pressure on the hook shank and rapid extraction are used to diminish pain during the removal procedure in non ocular tissue. This is a traumatic technique and not advised.

3. The Advance and cut method – is the most useful technique in anterior segment fish hook injuries. The hook stank is grasped firmly and a controlled surgical incision is placed to allow atraumatic delivery of the point and barb. Sterile wire cutters are used to transect the hook at a location between the barb and the bend after which the barbless hook is easily removed using the back out technique. Advantage includes surgically controlled second wound, no enlargement of the primary wound and minimal traumatic manipulation.

4. For hook penetration in the retina, the needle cover technique is used. This procedure entails passing a large bore needle into the eye through the entry wound. The fish hook (for small hooks) barb is then engaged within the lumen of the needle and both are withdrawn together.

Since different types of baits are used and due to the marine flora or fauna the wound caused by fish hook is a contaminated wound and needs treatment with broad spectrum antibiotics.

**Conclusion**

It is important to get information about the type of fish hook (or any object) that caused the injury before any attempt is made to remove it. We need not be taken aback when faced with a situation like removing a fish hook from the eye. The fish hook can be removed successfully by using the correct technique.

**References**