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Oculo Adnexal Trauma by Hook and Extraction under Infra Orbital Block: A Case Report from the Thies Regional Hospital Center

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Abstract **Case Report**

Ocular and or adnexal trauma is a frequent reason for consultation in rural areas. The context in which it occurs and the nature of the blunt or perforating object vary widely. The target population is heterogeneous, and the injuries sometimes alter the body image of patients, who end up adopting a fatalistic attitude. An exhaustive review of the epidemiological aspects of these injuries remains a challenge, especially in rural areas. We report a case of oculo adnexal trauma caused by a fish hook in a fisherman; extraction was performed via a cutaneous approach under the infra-orbital block.

Keywords: Trauma, oculo adnexal.

INTRODUCTION

Ocular or adnexal trauma plays an important role in ophthalmological emergencies [1]. They are a frequent reason for ophthalmological consultations, especially in rural areas; their frequency is lower than in urban areas [2]. The context of occurrence and the nature of the trauma are more or less varied. The paediatric age group remains the target population, although adults are not excluded. Occupational accidents are very rarely reported because of the damage they can cause to the body, and also because of the cost of compensating victims for damages. This is even less the case for rural populations living on low incomes, who tend to adopt a fatalistic attitude in the face of damage.

We report an atypical case of oculo-adnexal trauma caused by a fish hook in a fisherman at the THIES Regional Hospital Center.

OBSERVATION

We report a case of right oculo-adnexal trauma caused by a fish hook in a 33-year-old fisherman from MBOUR. Forty-eight hours before admission, the patient aboard a whaleboat received a hook in his right eye while trying to throw his nets into the water, causing pain, redness and minimal bleeding without any loss of visual acuity. He had been undergoing dermatological treatment for vitiligo for around 20 years.

The examination revealed:

- Uncorrected distance visual acuity of 8/10 OD and 10/10 OG
- An adnexal inflammatory syndrome consisting of swelling of the right eyelids, diffuse conjunctival hyperhaemia diffuse conjunctival hyperhaemia, chemosis opposite the point of impact (inferior cul-de-sac), the body of the hook hanging over the homolateral lower eyelid
- Normal anterior and posterior segments in both eyes.

Figure 1: Photograph showing a hook embedded in the lower eyelid

The positive diagnosis of right oculo-annexal trauma was accepted and the emergency treatment consisted of:

- Analgesia with tramadol 100 mg injectable (IM)
- Anti-tetanus sero-vaccination
- Indication for removal of the foreign body under local anaesthetic and counselling on anatomical prognosis

➢ The surgical procedures were as follows

- Swabbing and draping
- Locoregional anaesthesia (infraorbital block) performed transcutaneously at the infraorbital foramen or infraorbital hole, in line with the pupil, centred 2 cm from the wing of the nose and 1 cm below the orbital rim. Non-adrenalised 1% lidocaine injected slowly in 1,5 to 2 ml doses after a suction test. This anaesthetises the cheek and upper lip.
- The skin is approached by making an incision in the lower palpebral crease, dissecting plane by plane so as not to damage the fibres of the inferior rectus muscle; the body of the hook embedded in the said muscle is exposed

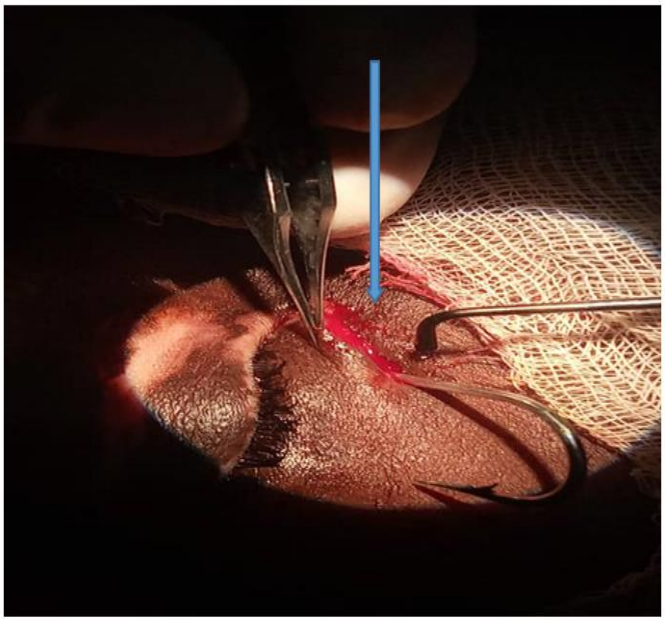

Figure 2: Cutaneous approach to the hook and plane-by-plane dissection

- Mobilisation and extraction of the hook through the skin incision without cutting it.

Figure 3: Photograph showing the extracted hook

- Plane-by-plane closure and dressing

➢ Post-operative care consisted of
- Amoxicillin-clavulanic acid 1000 mg tablets (1 tablet x3/d) for 5 days
- Indometacin eye drops (1 drop x 5/d) for 7 days
- Framycetin-dexamethasone ointment (1 application/evening) for 7 days
- Prednisone 20 mg tablets (2 tablets per day) for 7 days
- Paracetamol 1000 mg tablets if necessary

DISCUSSION

Any individual working in any profession is exposed to the risks of that profession. The literature reports a tendency for oculo-annexal trauma to affect men [2-5]. The exposure of young people living in rural areas is certainly justified by their very physical and therefore high-risk activities [3]. In contrast to Benazouz [1], who reported a case of perforating trauma by hook, the lesion assessment in our patient was limited to adnexal damage (conjunctiva, eyelid and oculomotor muscle). Dembélé *et al*., [4] reported frequencies of 97.43% and 40.06% respectively for conjunctival and palpebral involvement as associated lesions. The time taken for consultation and management of this patient was relatively identical to those reported by Benazouz [1], Meda [2] and Berete [3]. Prompt management with strict respect for anatomical structures during the operation is an important factor in the patient's functional prognosis.

CONCLUSION

Ocular-annexal trauma in the context of an accident at work is uncommon, and even less so with this type of foreign body. Extraction requires particular care because of the risk of vascular, nerve and muscle damage. Although some professionals advocate cutting the hook, it would be wiser to proceed as we have described in order to minimise any risk.

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