

SUCCESSFUL SURGICAL RETRIEVAL OF STRAIGHT BARBED FISHING HOOK FROM THE CAVUM ORIS OF A CAT : A CASE REPORT

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ABSTRACT

A one year old intact male domestic shorthair cat weighing 3kg was presented with a history of facial trauma following accidental entanglement with a barbed fishing hook. Clinical examination revealed pain, facial swelling and a small penetrating wound over the right zygomatic region. Radiography of the skull confirmed the presence of a radio- opaque broken barbed fishing hook embedded within the right facial soft tissues without evidence of skull fracture. Surgical exploration was performed under general anaesthesia and the hook was successfully retrieved. The wound was thoroughly lavaged and closed routinely. Postoperative treatment included broad spectrum antibiotics, analgesics and wound care. The cat recovered uneventfully and complete healing was observed within 10 days. This report highlights the importance of radiographic localization, meticulous surgical planning and a traumatic foreign body removal techniques in the successful management of penetrating barbed foreign bodies in cats.

KEYWORDS: Cat, barbed fishing hook, penetrating injury, radiography

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INTRODUCTION

Foreign body injuries are commonly encountered in small animal practice, particularly in dogs and cats with outdoor access (Hayes, 2009). Metallic foreign bodies such as needles, wires, nails, fish hooks and pellets may penetrate the skin and migrate into deeper tissues, producing pain, inflammation, infection and damage to adjacent anatomical structures (Hassan Kazemi Mehrjerdi *et al.*, 2021). Among

these, fishing hook injuries are unique because the barb prevents their withdrawal through the entry wound and increases the tissue trauma during attempted removal (Bojrab *et al.*, 2014). Fishing hook injuries most commonly affect the oral cavity, lips, tongue, paws and facial region due to exploratory behaviour and accidental entanglement (Hassan Kazemi Mehrjerdi *et al.*, 2021). Delayed treatment may result in cellulitis, abscess formation, neurovascular injury, osteomyelitis and chronic draining sinuses. Therefore, prompt diagnosis and surgical intervention are essential (Cook, 2003). Radiographic examination remains the diagnostic modality of choice for metallic foreign bodies because it accurately identifies the location, orientation, depth and relationship of the object to adjacent bony structures, thereby facilitating surgical planning (Pollard, 2012).

MATERIALS AND METHOD

A one year old intact male domestic shorthaired cat weighing 3 kg was presented with a history of facial injury accidental entanglement with in a discarded fishing hook while roaming outdoors. According to the owner, the cat had shown continuous discomfort, repeated pawing at the face, reluctance to eat and progressive swelling over the right side of the face. Clinical examination revealed the cat to be bright but painful on palpation of the affected area. A small puncture wound with mild haemorrhage and localized swelling was observed over the right zygomatic region.

No neurological abnormalities were detected and vital parameters were within the normal physiological limits. Oral examination revealed no penetration into the oral cavity. Radiograph of the skull were obtained in ventro dorsal and right lateral views. The radiographs revealed a distinct radiopaque metallic foreign body consistent with a broken barbed fishing hook lodged within the right facial soft tissues adjacent to the zygomatic arch (Fig.1).The radiographic findings confirmed the location of a penetrating facial foreign body and enabled accurate surgical intervention.

SURGICAL PROCEDURE

General anaesthesia was induced using xylazine (1 mg/kg) and ketamine (10mg/kg) administered intramuscularly and anaesthesia maintained with 2.5% isoflurane. The cat was positioned in left lateral recumbency and the right facial region was clipped and aseptically prepared. A small skin incision was made directly over the palpable hook. Careful blunt dissection was performed through the subcutaneous tissues until the shank and barb of the fishing hook were identified. To avoid additional tissue trauma, the hook was advanced slightly until the barb emerged through the skin. The barb was then disengaged and the hook was gently removed along its original path (Fig.2). The wound was thoroughly irrigated using sterile normal saline to remove debris and minimize bacterial contamination. Subcutaneous tissue and skin were closed routinely. Post operatively

dry syrup Cefpet was given orally for five days and syrup meloxicam for 3 days. Skin sutures were removed on 10th post operative day revealing complete wound healing without infection or facial deformity.

RESULT AND DISCUSSION

Fishing hook injuries in cats are relatively uncommon compared with dogs but may present unique surgical challenges because the barbed design prevents uncomplicated extraction (Kim *et al.*, 2011). Attempts to remove the hook by reversing its direction often produce additional tissue damage, haemorrhage and pain. Therefore, controlled surgical exposure and removal are recommended. Radiographic examination is indispensable in the diagnosis of metallic foreign bodies because it provides precise localization, assessment of tissue involvement and surgical planning (Abd Elkader *et al.*, 2020). In the present case, radiography accurately identified the position of the hook and confirmed the absence of

osseous injury. Several techniques have been described for fish hook removal, including the retrograde, string yank, needle cover and advance-and-cut methods (Gammons and Jackson, 2001). Deeply embedded hooks located near critical anatomical structures are best managed surgically under general anaesthesia to minimize complications. The excellent postoperative recovery observed in this case can be attributed to early presentation, accurate radiographic localization, meticulous surgical technique, adequate wound lavage and appropriate antimicrobial therapy.

CONCLUSION

Prompt radiographic diagnosis and meticulous surgical retrieval are essential for the successful management of penetrating barbed fishing hook injuries in cats. Surgical exploration minimizes tissue trauma and provides an excellent prognosis when combined with appropriate postoperative care.



Fig.1. Radio-opaque metallic foreign body consistent with a barbed fishing hook lodged within the right facial soft tissues adjacent to the zygomatic arch



Fig.2. Post operative facial reconstruction



Fig.3. Retrieved broken straight barbed fishing hook

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