CASE REPORT

Successful Retrieval of Fish Hook From Indian Flap-Shelled Turtle (*Lissemys punctata*) *via* Intra-oral Approach

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Lissemys punctata, an Indian flap-shelled turtle is a fresh water species found widespread and common in South Asia. Injuries due to entangled fish hook is the most common affection reported in these species (Balazs and Poley, 1993). Because fresh water turtles are opportunistic scavengers and also take live prey, they are most likely vulnerable to capture with baited hooks set to catch fish (Howey and Dinkelacker, 2013). The present case report discusses the retrieval and management of an entangled fish hook in an Indian flap-shelled turtle.

Case History and Clinical Observations

An Indian flap-shell turtle weighing around 1.5 kg was presented with entangled fish hook by a person who had rescued the turtle from poachers. On examination, it was found that the fish hook had penetrated the soft tissue of lower jaw while its remaining part and thread projecting outward from the oral cavity (Figs. 1 and 2). However, turtle was active and alert.

Treatment and Discussion

Surgical retrieval of a fish hook under general anesthesia was planned. Xylazine @ 1 mg/kg and ketamine @ 30 mg/kg body weight was administered intramuscularly at foreleg. Sedation was achieved after 10 min. One ml of 2% lignocaine hydrochloride was infiltrated locally to achieve analgesia at the site. The mouth of the turtle was kept open manually for the better visualization of the body of fish hook within the oral cavity. Through an intra-oral approach, the body of the needle was securely grasped by a needle holder, and the hook was retrieved with a gentle curved movement (Fig. 3, 4). There was little bleeding at the site. One percent povidone-iodine

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Figs. 1 & 2: Arrow indicates fish hook with thread

Fig. 3 & 4: After removal of fish hook

solution was instilled into the site. The owner was advised to maintain turtle in a small water tank and paint boric acid and glycerine paste at the hook retrieval site thrice daily for 3 days. The turtle recovered well and was released in the nearby pond 3 days later.

Fish hook injury is one of the most common accidents encountered in turtles. In most the cases, hook will be entangling in the sub-mandibular area, leaving the remaining part hanging outside the oral cavity. Sometimes, it may pierce the trachea or esophagus, leading to complications and eventually death. A fish hook can be retrieved under general or local anaesthesia based on the location. General anesthesia would be necessary because animals won't allow to manipulate manually and quickly retract their head back inside the hard shell. Hyland (2002) used propofol for induction and isoflurane for maintenance of general anesthesia for safe removal of fish hook in turtle by an incisional approach through neck. A combination of diazepam @ 0.3 mg/kg and ketamine @ 50 mg/kg has been used successfully (Chaudhary *et al*., 2012) for the retrieval of fish hooks in turtles. However, Sivanarayan *et al*. (2014) successfully retrieved the fish hook by local infiltration of 2% lignocaine only, through an intra-oral approach. In the present case, we used the combination of general as well as local anesthesia for the smooth retrieval of a fish hook.

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