

## SUCCESSFUL SURGICAL RETRIEVAL OF GASTRIC-ENTERIC FOREIGN BODIES FROM A NON-DESCRIPT DOG

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### SUMMARY

A one-year-old, non-descript male dog weighing 20 kg, was presented with the history of accidentally swallowing a fish hook with food. Radiography showed that the hook was located in the stomach. The hook was surgically removed through a gastrotomy and enterotomy incisions. The dog recovered without any complications.

**Keywords:** Dog, Fish hook, Foreign body, Gastrotomy

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Gastrointestinal foreign bodies are the most frequently encountered surgical issue in dogs and cats (Papazoglou *et al.*, 2003). When pets ingest foreign bodies such as plastics, stones, coins, rubber objects, bottle caps, marbles, tampons, or needles, it often results in gastrointestinal obstructions (Raghunath *et al.*, 2016; Mahesh *et al.*, 2019). The severity of the obstruction, depends on whether it is complete or partial, size and physical characteristics of the foreign body. These foreign bodies can lead to life-threatening complications, including imbalances in fluid and electrolytes, hypovolemic shock and toxemia (Papazoglou *et al.*, 2003). This case report describes the diagnosis and successful surgical removal of a fish hook as foreign body through a gastrotomy and enterotomy incision.

A one year old male dog of non-descript breed was presented to a veterinary hospital and research institute with the history of having ingested a fish hook along with food, two days prior. The dog exhibited lethargy, loss of appetite, regurgitation, dullness, and difficulty in passing faeces. Upon conducting a general clinical examination, all of the dog's vital signs and physiological parameters were found to be within the normal range. Examination of the dog's oral cavity did not reveal any foreign objects. The radiographic examination showed a radio-opaque foreign body in the dog's stomach, matching a fish hook (Fig. 1). Taking into consideration the information provided by the owner, the observed clinical symptoms and the radiological evidence, the diagnosis for this case was determined to be an obstruction in the stomach caused by a foreign body fish hook.

Preoperative preparations for the animal included

administering antibiotic prophylaxis and addressing fluid, acid-base and electrolyte imbalances. Atropine was administered subcutaneously at a dose of 0.04 mg/kg BW as a pre-medication. For induction, Diazepam was given intravenously at a dosage of 0.5 mg/kg BW, and Ketamine at a dosage of 5 mg/kg BW. The anesthesia was maintained with 1.5% isoflurane. Aseptic procedures were followed to prepare the ventral midline area for surgery.

A ventral midline celiotomy incision was made and a mass of obstruction was found at the proximal duodenum. An enterotomy incision was made where a loop of thread causing the issue was removed. The stomach was then carefully exteriorized and a gastrotomy was performed to remove the obstructing fish hook, which was located at the pylorus of the stomach. The fish hook was removed with care from the distal greater curvature of the stomach (Fig. 2). After the removal of the gastric foreign bodies, the enterotomy incision was closed using 2-0 Poly Glycolic Acid (PGA) with simple interrupted suture pattern and gastrotomy incision was closed by Connell followed by lambert suture pattern using 1-0 Poly Glycolic Acid. The abdominal muscles were sutured with no. 1, PGA in continuous fashion followed by the skin in cross mattress pattern. The dog recovered from anaesthesia within 10 minutes after being taken off the anesthesia machine.

Post-operatively, the dog received treatment including intravenous administration of Inj. ceftriaxone at a dosage of 20 mg/kg BW, Inj. Tramadol at a dosage of 5 mg/kg BW subcutaneously and Inj. Pantaprazole at a dosage of 1 mg/kg BW intravenously. Fluid therapy was provided for three days. The dog was kept off milk/water for next 24 hours and off feed for 48 hrs. Suture removal

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Fig. 1. Abdomen lateral radiograph reveals radio-opaque foreign body (Fish hook) in the stomach

was advised on the 10<sup>th</sup> day post-surgery. The dog did not exhibit any signs of vomiting and passed feces normally in the days following the procedure. An uneventful recovery was observed.

The incidence of gastrointestinal obstruction (GIT) is notably high among young male dogs due to their indiscriminate eating habits and playful nature (Ellison, 1990). Occasional or continuous vomiting is the most important clinical signs in obstruction, depending upon the type of obstruction (Patil *et al.*, 2010). Commonly reported gastric foreign bodies in dogs and cats includes bones and plastic objects (Rousseau *et al.*, 2007; Gianella *et al.*, 2009; Hayes, 2009 and Deroy *et al.*, 2015), however, fishhook as a foreign body are less commonly reported (Pratt *et al.*, 2014; Deroy *et al.*, 2015). In some instances, small and sharp foreign bodies like sewing needles, pins or fish hooks may be found in asymptomatic animals and can sometimes pass uneventfully (Guilford *et al.*, 1996). Ultrasound examination of obstructive patients can be done to assess the amount of damage and need for surgery. These interventions should be coupled with the correction of fluid and electrolyte imbalances, with particular attention to addressing hypokalemia (Deroy *et al.*, 2015).

### CONCLUSION

Sharp metallic foreign bodies accompanied with linear thread/string need surgical intervention if are not expelled/moved within 24 hrs in the faeces.

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Fig. 2. Fish hook retrieved after surgery

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