

Endoscopic Retrieval of a shaving blade from stomach of a dog - A Case Report

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Abstract

Ingestion of foreign bodies is common in dogs. A non-descript male dog was presented to Veterinary College and Research Institute Hospital with suspicion of having swallowed a shaving blade two days earlier. Clinical examination revealed hydrated animal with normal vital signs. Radiography confirmed the presence of a blade in the stomach. Dog was premedicated with glycopyrrolate. Induction of anaesthesia was done with propofol and maintenance was done using ketamine and diazepam. Endoscopy revealed the presence of blade, linear ulcerations and erosions in the stomach. The blade was retrieved using snare under endoscopic guidance. An over-tube to protect the oesophagus was used during the retrieval of the blade. Dog was administered with amoxicillin- clavulanate, pantaprazole and fluid therapy for three days. The dog had uneventful recovery following therapy.

Keywords: Endoscopy- shaving blade- stomach - dog

Introduction

Gastrointestinal foreign bodies are common in dogs owing to their indiscriminate eating habits, playful activity, deglutition of incompletely masticated food, attention seeking behaviour and availability of toys in the vicinity (Sale and Williams, 2006; Leib and Sartor, 2008; Gianella *et al.*, 2009). Variety of foreign bodies including bone, hooks, jumping ball, puffer ball, socks, coins, feeding bottle nipple, tablets and toys are reported in dogs (Gianella *et al.*, 2009; Vijayakumar *et al.*, 2009; Shalini *et al.*, 2017; Reddy *et al.*, 2018; Vijayakumar *et al.*, 2018a-c and Vijayakumar *et al.*, 2019). This article describes retrieval of a shaving blade from stomach of a dog under endoscopic guidance.

Case History and Observation

A non-descript male dog was brought to Veterinary College and Research Institute Hospital with suspicion of having swallowed a shaving blade two days earlier. Clinical examination revealed well hydrated animal with normal vital signs (Rectal temp: 100.6 F, Pulse rate 112/mt, Respiratory rate 26/mt). Haematobiochemical parameters were within the normal range. Radiography confirmed the presence of a blade in the stomach (Fig.1). It was decided to explore through gastroscopy and retrieve the same.

Treatment and Discussion

Dog was administered with atropine sulfate (@ 0.04 mg/kg SC). Premedication was done with xylazine (@ 0.5 mg/kg IM) and induction of anaesthesia using propofol (@ 1-2 mg/kg IV) was done. Maintenance of anaesthesia was carried out with ketamine and diazepam ((@ 5 mg/kg IV and @ 0.25 mg/kg IV respectively) combination. Vital signs were monitored during the procedure. Endoscopy was first inserted into the stomach tube and both the stomach tube and the endoscope was advanced through the oesophagus into the stomach. Endoscopic evaluation revealed the presence of shaving blade within the stomach (Fig. 2) with ulceration and erosions of mucosa. The snare was passed through the working channel of the endoscope and the shaving blade was grasped (Fig. 3). After squeezing the blade into a semicircular fashion on its long axis, the endoscope along with snare snugly holding the blade was withdrawn within the outer- tube (stomach tube). Endoscope with the over- tube was quickly withdrawn from the animal through the oesophagus. After the removal of endoscope from the animal, the endoscope was advanced through the over- tube and the snare was loosened and the blade was removed (Fig.4). Dog was administered with amoxicillin- clavulanate (@10mg/kg body wt IV bid), pantaprazole (10mg IV, sid) and dextrose normal saline

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@@10ml/kg body wt IV, bid) for three days. The dog had uneventful recovery following therapy.

Hayes (2009) reported that foreign bodies can pass through the gastrointestinal tract without showing clinical signs, or they could partial or complete obstruction. Sherding (2013) reported that gastric foreign bodies were usually asymptomatic or they might cause symptoms in pyloric obstruction or gastric mucosal damage. The absence of clinical signs in the present study is supported by the above reports. Endoscopy

was used in the present study to both diagnose and retrieve the foreign body. Use of outer tube to protect the mucosa during the retrieval of the sharp foreign body was also done by other workers. Wood and Gallagher (2021) reported that foreign body hood was used by endoscopist during retrieval of sharp foreign bodies or bones. Shehata *et al.* (2024) used a stomach tube over the endoscope to protect the oesophagus from getting damaged during their endoscopic retrieval of 35 blades from the stomach of a patient.

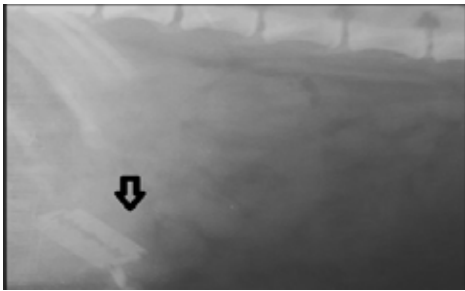


Fig. 1: Lateral radiograph showing radio opaque shaving blade (arrow)



Fig. 2: Endoscopy of stomach revealing shaving blade



Fig. 3: Endoscopy: Blade secured with endoscopic snare



Fig. 4: Retrieved shaving blade

Conclusion

Successful retrieval of a shaving blade from the stomach of a dog under endoscopic guidance is placed on record.

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