

Endoscopic Retrieval of Sewing Needle from Oesophagus in A Cat

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Abstract

Endoscopy is a commonly performed non-invasive procedure in companion animals to remove any foreign objects struck at the upper gastrointestinal tract. A year-old Persian short-haired female cat was presented with a history of dyspepsia, vomiting, retching and gasping for a period of 4 days. The detailed history revealed that the cat had consumed fish one week back and the symptoms were noticed after three days. Thoracic radiography confirmed the presence of a fine radioopaque structure that has perforated the cranial esophagus and trachea. Endoscopic evaluation revealed the tip of a sewing needle with thread in the esophageal lumen and the same was successfully retrieved through endoscopy. The cat showed an uneventful recovery following antibiotic and supportive therapy.

Keywords: Endoscopy, sewing needle, esophagus and trachea, cat

Introduction

Ingestion of any foreign objects may be a life-threatening problem if overlooked. The most frequently ingested foreign bodies in pet animals are magnets, latex teats, wood foreign bodies, such as skewers or ice pop sticks, corn cobs, pet toys, children's toys and solidified wood glue, sewing needles (Pratt *et al.*, 2014; Cornell and Koeing, 2015) and fish bones (Trams, 2003). Endoscopy is a non-invasive procedure that is performed in companion animals to remove any foreign objects struck at the upper gastrointestinal tract. This procedure is advantageous over surgical correction because it is time-effective and has a lesser risk to animals (Deroy *et al.*, 2015). The present paper puts on record about accidental ingestion of a sewing needle by a cat and its successful retrieval by endoscopy.

Case History and Observations

A year-old Persian short-haired female cat was presented with a history of dyspepsia, respiratory distress, gasping, coughing, vomiting and retching for a period of four days. Detailed history revealed that the cat was offered fish one week back and the cat had started showing symptoms after three days. Clinical parameters were within the normal limits. Lateral x-ray of the chest and neck revealed the radio opaque needle piercing the oesophagus and trachea. The endoscopic procedure was carried out under general anesthesia. The cat was premedicated with atropine @0.04mg/kg as preanaesthetic, followed by ketamine (@ 11 mg/kg) and xylazine (@ 1 mg/kg, i/m). Following retrieval of the

foreign body, the cat was administered with ampicillin (@20 mg/kg for 3 days) and a single dose of ethamsylate (@0.4 ml i/m).

Results and Discussion

Clinical examination of the affected cat revealed severe gasping, and retching along with a protuberance of the ventral aspect of cervical esophagus that was painful on palpation. These findings are in accordance with Abd Elkader *et al.* (2020) and Webb (2014) who reported that anorexia, retching and gasping are the common presentation signs in cats that were suspected of oesophageal foreign bodies. Right lateral thoracic x-ray revealed the presence of a fine radio-opaque structure that had perforated the esophagus, trachea and esophageal muscles (fig. 1).

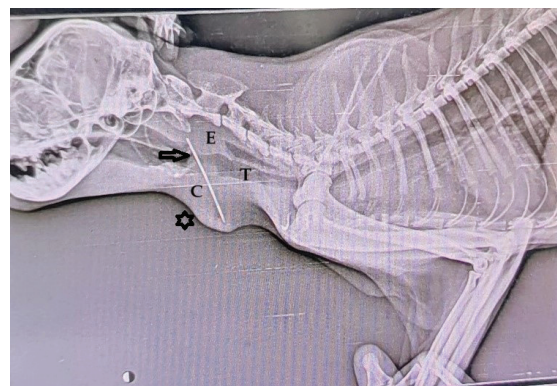


Fig. 1: Right lateral X-ray of the cat. Radio-opaque fine structure (arrow) that has perforated the esophagus (E), trachea (T) and the tip lodged in the cervical muscles (C) giving a protuberance (*) of ventral neck.

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Radiography is more useful in evaluation of esophageal foreign bodies in dogs and cats when compared to physical methods of examination (Sitaria *et al.*, 2020 and Tyrrell, 2006). A sewing needle blunt

end with a small length of cotton thread was seen in the cervical esophagus (fig. 2) during endoscopy. Using a retractor forceps the needle was successfully retrieved from the esophagus (fig. 2B).



Fig. 2: Endoscopic appearance of thread (arrow); sewing needle with thread retrieved from the esophagus (B)

Endoscopy is one of the non-invasive tools that has a dual role in both diagnosis and retrieval of foreign bodies in upper gastrointestinal tract (Zoran 2005 & Binvel *et al.*, 2018). Several authors have reported the endoscopic retrieval of non-penetrating (Michels *et al.*, 1995) and penetrating foreign bodies (Webb 2014) from the upper gastrointestinal tract in dogs and cats. However, the present case reports perforation of the sewing needle through the esophagus, trachea, and dependent cervical muscles. The findings of the present case is in accordance with Pratt *et al.*, (2014). The sharp-pointed objects should be removed within 24 hours due to the risk of complication (Birk *et al.* 2016). Though the present case was presented after 4 days and with complications of perforation of the surrounding structures, the oesophageal wall was still smooth, and thin and there was no oesophageal ulcer indicating the needle and threads did not induce a severe inflammatory response (Han 2003). The cat was later treated with inj. styptochrome, amoxycillin and ondansetron on day 1, but followed antibiotic for 2 more days. The treatment used in the present case is in agreement with (Abd Elkader *et al.*, 2020) who documented that drugs should be used for a considerable duration to prevent certain complications like the formation of stricture and establishment of infection. The cat was recovered uneventfully following therapy.

Conclusion

Successful retrieval of sewing needle from the oesophagus of cat through endoscopy is placed on record

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