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Surgical retrieval of unusual horse whip as linear gastric foreign body in a Great Dane pup

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Abstract

A 7 month old male Great Dane was brought to Small Animal Surgery Unit of Veterinary Clinical Complex, Veterinary College and Research Institute, Tirunelveli with the history of accidental engulfing a horse whip on previous day. Abdominal radiography confirmed the presence of handle of the horse whip in the gastric area. Cranial midventral laparotomy was performed under general anaesthesia and the horse whip was removed by gentle traction by gastrotomy. Post-operatively animal was administered with antibiotics, analgesics and maintenance fluid therapy for seven days. The dog was maintained in partial parental nutrition for 3 days and gastrointestinal protectants for 5 days. On 9th day sutures were removed and animal recovered uneventfully.

Keywords: Gastric foreign body, gastrotomy and great dane

Introduction

Gastric foreign body is those that are ingested by dog that cannot be digested (i.e., rocks, plastics, toys, leashes, balls, cloths, sticks) or that is slowly digested (bones) or that will not readily pass through the gastrointestinal tract^[1]. Canines are playful companions and have the habit of playing and eating non-food items leading to gastric foreign body syndrome^[2]. These materials are easily swallowed, lodged in the stomach and may cause ulceration, starvation, dehydration and eventual death^[3]. Sometimes gastric foreign bodies pose a constant threat since they cause serious damage to the lining of the stomach. The most common clinical signs are persistent vomiting, partial to complete anorexia, weight loss and lethargy^[4]. The presence of gastric foreign body is higher in pups due to their playful and indiscriminate feeding habits^[1]. In the present case, a 7 month old male Great Dane puppy playfully swallowed a long horse whip, which was used to control the pup by its owner. The pup was subjected to emergency explorative laparotomy and the horse whip was retrieved successfully. This paper records the successful retrieval of unusual gastric foreign body through emergency laparotomy.

Materials and Methods

A 7 month old male Great Dane was brought to Small Animal Surgery Unit of Veterinary Clinical Complex, Veterinary College and Research Institute, Tirunelveli with the history of accidental engulfing a horse whip on previous day. The animal was clinically normal and the tip of the horse whip was palpable at the caudal cervical oesophagus. Abdominal radiography confirmed the presence of handle of the horse whip in the gastric area (Fig. 1).

Preoperative antibiotics ceftriaxone and analgesic butorphanol was administered intravenously at the dose rate of 20 mg/kg body weight and 0.2 mg/kg body weight respectively. Anaesthesia was induced with Ketamine hydrochloride at the dose rate of 5 mg/kg body weight I.V. and Diazepam at the dose rate of 0.5 mg/kg body weight I.V. and maintained with 2 per cent isoflurane with variable vaporizer setting. Cranial midventral laparotomy was performed and stomach was exteriorized through the incision site and packed with moistened laparotomy pads. Gastrotomy incision was made in the antimesenteric border of fundus region over the foreign body (Fig. 2) and the horse whip was removed by gentle traction (Fig.3). Gastrotomy incision was closed with PGA 3-0 by simple continuous followed by Lambert suture pattern. Linea alba was closed using PGA 1 in cross mattresses pattern followed by subcutaneous tissue using PGA 1-0 by simple continuous pattern and skin incision closed with polyamide 0 in cross mattresses pattern.

Post-operatively animal was administered with antibiotics, analgesics and maintenance fluid therapy for seven days. The dog was maintained in partial parental nutrition for 3 days and gastrointestinal protectants for 5 days. On 9th day sutures were removed and animal recovered uneventfully.

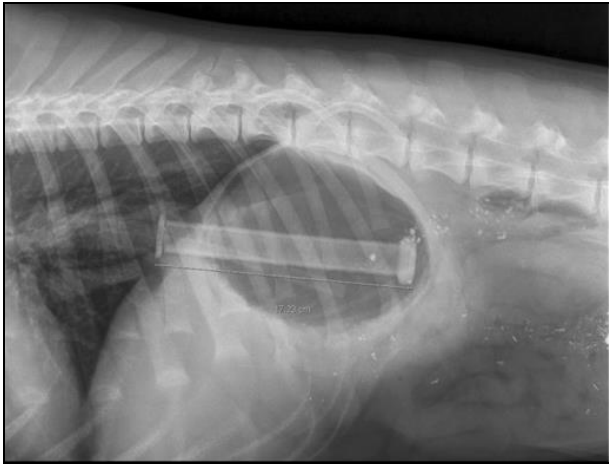


Fig 1: X ray revealed presence of horse whip handle in the gastric area



Fig 2: Exteriorization of horse whip at the antimesenteric border of fundus



Fig 3: Retrieved horse whip and the pup after surgery

Results and Discussion

Indiscriminate feeding habit predisposes dogs to foreign body ingestion and dogs at any age can suffer from gastric foreign body obstruction, but younger animals are more prone [5]. There are numerous reasons for gastrointestinal obstruction in small animals which include foreign bodies, trichobezoars, neoplasia and infectious peritonitis. In the present case the reason for gastric obstruction was unusual incidence of engulfing a lengthy horse whip which was used by the owner

to control the dog. Persistent retching, nausea, vomiting, loose faeces, constipation or history of ingestion of inedible material raises suspicion for foreign body syndrome [6]. Foreign bodies located in the fundus of the stomach usually cause no symptoms. If they lodge in the pyloric portion of the stomach, gastric emptying may be impaired [4]. In the presented case there were no much clinical signs except clear history of foreign body ingestion, dullness and anorexia since the foreign body was present from the caudal oesophagus and the handle was lodged in the fundus. Metallic gastric foreign bodies are usually diagnosed by plain radiography, but positive or double contrast studies are performed to detect non-metallic foreign bodies [4]. The lateral abdominal survey radiograph of the present case revealed radio opaque foreign bodies with a clear visualization of whip handle. Gastrotomy is most often indicated for treatment of stomach problems including removal of foreign objects and stomach tumors [7]. In this case gastrotomy was successful in saving the life of the Great Dane pup.

The prompt presentation by the animal owner, earlier diagnosis and timely surgical intervention favours successful retrieval of unusually large linear foreign body in Great Dane pup.

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