

Computed Radiographic Diagnosis and Management of Non Metallic Enteric Foreign Body in a Dog

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Abstract

A dog was presented with history of inappetence, depression, vomiting, excessive salivation, constipation and other abnormalities of defecation including unproductive straining instances of defecation, presence of blood in faeces, reduced volume of faeces and even diarrhoea. Computed radiograph revealed a linear foreign body in small intestine. The dog was administered with 5 percent Normal saline, Inj. Ceftriaxone and Tazobactam and injection Meloxicam. Besides these, laxative was also given orally. Next day, dog vomited out the foreign body causing relief from obstruction. Improvement was noticed in feeding and voiding habits of dog. The dog recovered uneventfully.

Keywords: Computed radiography; dog; foreign body; gastro-intestinal

Introduction

Intestinal obstructions or blockages in pets are life threatening emergency and can result when materials other than foods, commonly bones, toys, string and rocks are ingested (Horstman *et al.*, 2003; Marsolais, 2004). Foreign body syndrome in dogs is commonly seen in association with foreign bodies lodged either in oral cavity, oesophagus, stomach or even in lower GI tract (Pillai *et al.*, 2006). While smaller foreign bodies may pass through gastrointestinal system without becoming stuck or causing undue damage, larger objects may become lodged in intestines or stomach and can have life-threatening consequences. Dogs and cats of any age can develop foreign body obstructions but younger animals under two years of age are more prone due to their naturally curious natures (Basher and Fowler, 1987; Stowater, 1980). Objects can cause blockages of oesophagus, stomach, small intestine and/or large intestine (Rouholamin, 1980). This communication reports a case of small intestine foreign body in a dog, due to engulfing of linear nylon strap piece.

Radiographs (X-rays) are used to identify the site of obstruction and are especially helpful if foreign body contains bone, metal or rock which show up characteristically on a radiograph. However, some foreign bodies made up of organic material such as corn cobs, string and hair balls may be of the same density as soft tissue on X-rays and can blend in easily with normal structures in pet's abdomen. In cases such as this one, contrast radiography

involving the addition of barium (dye-like material) can be extremely helpful to outline the obstruction and check patency of intestines (Thrall, 1994).

Relieving the obstruction commonly involves surgical exploration of pet's abdomen to remove foreign body and examine the entire gastrointestinal tract for further damage. Gastrointestinal foreign bodies are challenging and difficult cases to manage. Treatment depends on type of foreign body and its location, along with degree of obstruction and length of time it has been blocking the gastro-intestinal (GI) tract. Timely diagnosis and surgical removal of obstructions may prevent the need for resection and anastomosis.

History and Observations

A dog was presented with history of inappetence, depression, vomiting, excessive salivation, constipation and other abnormalities of defecation including unproductive straining instances of defecation, presence of blood in faeces, reduced volume of faeces and even diarrhoea. Palpation of the animal's abdomen or throat did not reveal the presence of foreign body. Based on clinical observation and history, it was diagnosed as obstruction in GIT with confirmation after plain computed radiograph. Computed radiograph revealing a linear foreign body in small intestine (Fig. 1).

Treatment and Discussion

Prompt Veterinary intervention to correct electrolyte abnormalities caused by vomiting, fluid replacement to correct dehydration and antibiotic therapy in case of infection is frequently required before correction of the obstruction, in this regard the dog was administered with 5 percent Normal saline solution

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Enteric foreign body management



Fig. 1: Linear foreign body in small intestine (marked arrow)



Fig. 2: Linear nylon strap piece (foreign body) recovered from small intestine

@ 30 ml/kg IV, Inj. Intacef Tazo^a (Ceftriaxone and Tazobactam) at 15 mg/kg b.wt. intravenously and injection Meloxicam (Melonex^a) @ 0.2 mg/kg b.wt. intravenously. Besides these laxative (Luxabulk^b) was also given orally to the dog. On next day, the dog vomited out the foreign body causing relief from the obstruction. Vomiting is most common presenting complaint in Pets with gastrointestinal foreign bodies (Elwood, 2003).

Improvement was noticed in feeding and voiding habits of the dog. However, foul smelling watery diarrhoea persisted along with severe dehydration, anaemia and secondary respiratory tract infection. The dog showed moderate signs of improvement under the umbrella of supportive therapy. Before diagnosing a foreign body, several other common causes of acute or chronic vomiting need to be ruled out. An organised approach to diagnosis in suspected gastrointestinal foreign body cases will help minimise unnecessary testing and will allow to make an accurate and timely diagnosis. In present case, computed radiography helped to reach at definitive diagnosis. To determine which tests to perform, primary considerations such as signalment, acute vs. chronic nature of the clinical signs, frequency of vomiting, degree of clinical signs (mild, moderate, severe or life threatening), presence of clinical signs such as shock, melena or abdominal pain and physical examination findings should be addressed (Slatter, 2003 and American College of Veterinary Surgeons, 2006).

Conservative therapy is not recommended for dogs diagnosed with a linear foreign body. When an intraluminal foreign body is diagnosed in the small intestine, it is not typically recommended to use lubricants or laxatives to facilitate passage of the item unless it is

causing only a partial obstruction and is small enough to pass through the ileocecal valve. Even if this is the case, measure the time it may take for passage to occur and the potential damage the item could cause while being expelled through the bowel against the risks and potential complications of immediate surgical excision.

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