

SURGICAL AND POST SURGICAL MANAGEMENT OF IN GASTRODUODENAL LINEAR FOREIGN BODY IN A DOG

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Linear foreign bodies have been reported more frequently in cats but are commonly found in dogs. The materials include string, threads, plastic nets, ribbon, audio tape etc. When ingested string pass through the gastro intestinal tract and trapped in any places. The common location of trapping is at either the base of the tongue or the pylorus. This type of foreign material has a greater probability of developing perforation and peritonitis which increases the probability of death. The present report describes a case of gastro intestinal obstruction due to a long ribbon and its surgical and post operative management in a female Dachshund.

Case Report

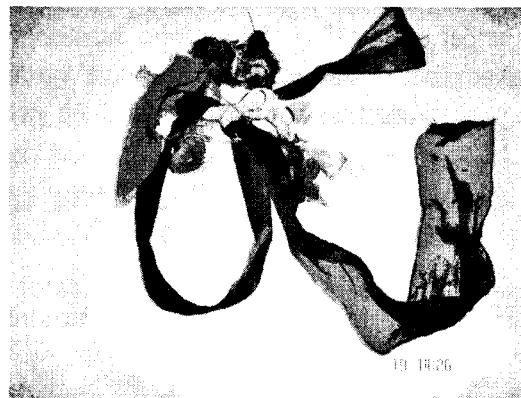
An eighteen month old female Dachshund was brought to surgery unit of Veterinary hospital, Kokkalai, Thrissur with a history of off-feed, vomiting for two days after accidental ingestion of a piece of ribbon. Clinical examination of the animal revealed the rectal temperature 100.4 °F, respiration 40/min., pulse 120/min. and congested mucous membrane. Animal was weak. Abdomen was tensed and animal evinced pain on palpation of the abdomen. Survey radiograph revealed bunched intestinal loops with air column extending from the pyloric region of stomach to the small intestinal loops. Ultrasonography revealed a hyper echoic mass inside the gastric lumen towards the pyloric region. The condition was diagnosed as a gastroduodenal linear foreign body and decided to perform surgery.

Surgical Management

For preoperative stabilisation of the patient, intravenous fluid therapy using ringer lactate at the rate of 10ml/kg body weight was given.



1. Linear foreign body in the intestine



2. Foreign body recovered



3. Animal 4 days after surgery

The mid ventral abdomen extending from pubis to xiphoid was shaved, scrubbed with antiseptic lotion, mopped dry and applied Tr. Iodine. The animal was premedicated with atropine sulphate at the rate of 0.045 mg/kg body weight IM and xylazine hydrochloride at the rate of 1 mg/kg body weight IM. General anaesthesia was induced with ketamine at the rate of 10mg/kg body weight IM.

The animal was controlled on dorsal recumbency. A cranial mid ventral incision was put on the skin. The subcutaneous tissue was incised and the incision extended through the linea alba to reach the abdominal cavity. The stomach was identified and isolated using sterile drapes. The stomach was palpated to feel a mass lodged at the pylorus. A Doyens clamp was applied over the palpable mass. The incision was put on the stomach wall at the less vascular area to reach the gastric lumen. A piece of ribbon, with the knotted end lodged at the pylorus, was removed. The gastrotomy incision was closed by inversion sutures, Connells followed by Lemberts, using chromic catgut No. 2/0. The stomach wall was flushed with normal saline and repositioned into the abdominal cavity.

Further examination of the gastro intestinal tract revealed plicated intestine with telescoping of the loops. The plicated intestinal loops were isolated. An incision

was put on the anti mesenteric border to the reach the lumen. A long segment of ribbon was removed. The telescoping and plications got simultaneously corrected with slow pulling of the linear foreign body. The edges were cleaned and the enterotomy wound was closed by inversion sutures using chromic catgut No. 2/0. The abdominal cavity was lavaged with normal saline. Metronidazole solution (25 ml) was infused into the abdominal cavity. The linea alba along with peritoneum was closed in simple continuous pattern using chromic catgut No. 1. The skin wound was closed by vertical mattress sutures using coarse monofilament nylon. The suture line was sealed with Tr. Benzoin co. and an abdominal bandage was applied.

Post Operative Management

The animal was administered ceftriaxone at the rate of 40mg/kg body weight IV for seven days. Parenteral administration of dextrose normal saline was continued for two days. Laxatives (cremaffin) orally was given post operatively. Animal was offered diluted milk and arrow root biscuits from third day onwards post operatively and gradually shifted to normal food. The skin sutures were removed on eighth post operative day. The animal had an uneventful recovery.

SHORT COMMUNICATION

Plasma lactate- A pre operative indicator of survivability in dogs with Gastrointestinal foreign bodies

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Plasma Lactate measurement can be used as a valuable prognostic indicator in critical illness in people and animals. Hyper lactatemia develops when the rate of lactate production in ischaemic tissue exceeds the rate of lactate metabolism in the body.

A study conducted as a part of post graduate research work by the author on Gastrointestinal foreign bodies in dogs revealed that thick plastic materials, hair and coir balls lodged in the stomach as a mass and plastic carry bags, nylon and cotton threads extending from pylorus to ileum caused

intussusception, perforation of the intestine and peritonitis leading to increased probability of death in dogs. Surgery was performed in fifteen cases (26 per cent) to recover the various foreign bodies. The plasma lactate level was analyzed before surgery to assess the survivability of these dogs. It was found that the plasma lactate level of three dogs that died after surgery was above 6 mmol/L. Plasma lactate level of more than 6.6 mmol/L indicates gastric necrosis in dogs. The reference range of plasma lactate concentration in healthy dogs was reported to be 0.3 - 2.5mmols/L.

Studies show that human patients with elevated lactate levels (>5 mmol/L) have a high mortality rate (>80%) and dogs with lactate levels >4.4 mmol/L had a very poor prognosis.

Plasma lactate concentration is a good indicator in determining prognosis of dogs undergoing surgery for gastro intestinal foreign bodies.