

SURGICAL MANAGEMENT OF CONSTRICTED ILEO-COLIC SPHINCTURE IN A DOG

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Obstructive gastro intestinal disorder in dogs is very common which mostly occur due to ingestion of foreign body and rarely due to constriction of ileo colic sphincter. A Labrador with the history of intermittent vomiting and absence of defecation. The case was diagnosed as constriction of ileo- colic- sphincter based on Ultrasonography (USG) and contrast radiography findings. Laparo- enterotomy was performed to remove the accumulated faecal material along with the relieving the constricted ileo-colic sphincter by dilatation. The dog showed uneventful recovery without recurrence of the clinical signs.

Keywords: Ileo colic sphincter, Laparo enterotomy, Obstructive-Gastro intestinal disorder.

Obstructive gastro intestinal disorder in dog may be as a result of an ingested foreign body due to their indiscriminate feeding habits, tumour, intussusception, torsion, stricture of sphincter, dehydrated faecal contents (Ellison,1990). The most common cause is foreign body ingestion and rarely stricture in ileo-colic sphincter. There are very few case reports of intestinal obstruction due to ileo-colic sphincter stricture. Irrespective of the causes the main symptoms of obstructive gastrointestinal disorder are dehydration, distended abdomen, absence of defecation partially or completely, vomition. Based on the clinical symptoms the pin point diagnosis of ileo colic sphincter stricture is not possible and even normal radiography may not reveal the actual site and etiology of obstruction which need to be strengthened or précised by USG, contrast radiography. If the condition can be confirmed laparo-enterotomy is indicated for removal of neoplasia, correction of intussusception, dilation of ileo colic sphincter (Aronsohn, 1993). This case report describes the clinical findings and surgical management of ileo colic sphincter stricture in dog.

Case History and Observations

A 2 years 4month old Labrador dog weighing 23.5 kg was presented to the Clinics with a history of intermittent vomition, anorexia, dullness, absence of defecation for 10 days. The animal was initially treated with unsuccessful attempts to control the vomition and even after enema and laxative the dog did not pass stool. The clinical examination of the animal showed severe dehydration, sunken eyeballs with subnormal body temperature (99°F), tachycardia (132 beats per minute) and tachypnea (32 breaths per minute). The animal was subjected to right lateral abdominal radiography which demonstrated distended loops of small intestine indicating an obstruction. To locate the site of obstruction USG (whole abdomen) and Barium meal radiographs in sequence of 0 min 30 min,1hour, 2 hour 6hours,12 hours and 24 hours were done (Fig. 1 and 2). The result of barium meal study confirmed an obstruction at the level of ileo-caeco- colic junction and was decided for laparo-enterotomy to remove the accumulated ingesta and corrective surgery of ileo-caeco-colic junction.



Fig.1. and 2. Barium meal study of abdomen shows the contrast agent as propagated up to ileo-caeco-colic junction in Ventro-dorsal view(2) and Lateral view(3).

Materials and Methods

Preoperative fluid therapy with Ringer Lactate (RL) 300 ml I/V, and injection of dexamethasone @5mg/kgb.wt. I/M, ondansetron @4mg/kg b. wt. I/V, ceftazidime @25mg/kgb.wt. I/V, esomeprazole @1mg/kg b.wt. I/V were administered for stabilization of the patient 12 hr prior to the surgery. The ventral abdomen of the dog was prepared aseptically for the surgery and premeditated with Atropine Sulphate @ 0.04mg/kg body weight subcutaneously, and after 10 minutes Xylazine HCL @1mg/kgbody weight and Butorphenol @0.1mg/kgbody weight intramuscularly were administered. After the animal was sedated, Ketamine HCL @ 5mg/kg bodyweight and Diazepam @ 0.5mg/kgbodyweight were injected intravenously to anaesthetize 'to effect'.

The anaesthetized dog was restrained in dorsal recumbency and an incision of about 4.5cm length was given on linea-alba caudal to umbilicus and the abdominal cavity was

entered. Most of the jejunal and ileal loops were exteriorized gradually were evaluated and the obstruction was found in the ileo-caeco-colic junction (Fig. 4). An enterotomy incision of 2cm length was made in the anti-mesenteric border of the ileum cranial to the ileo-caeco-colic junction to remove the impacted ingesta (Fig. 5). The ileo-colic sphincter was observed fully constricted making it completely closed. The sphincter was manually dilated using curved artery forceps followed by finger to make patency. The edges of the incision were mopped with normal saline soaked sterile gauze and Lambert pattern of inversion suture was given using (2-0) Vicryl (Fig. 6). The abdominal cavity was flushed with Metrogyl infusion and closed routinely by interrupted suturing with No.1 Vicryl followed by skin with no. 1 Nylon. Intraoperative Atropine Sulphate @ 0.5ml intravenously was injected two times to minimize Vagal Reflex and emetic tendency during handling of intestine intraoperatively.

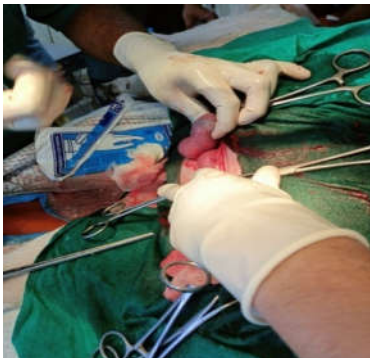


Fig.4: Identified obstructed Ileo-Caeco-Colic junction

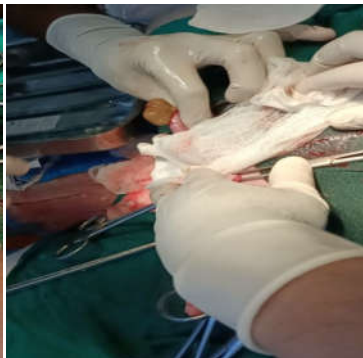


Fig.5: Removal of Faecal material



Fig.6: Routine closure of Enterotomy site

The animal was administered with Ceftazidime @ 25mg per kg. b. wt. i/v. bid, Infusion Metronidazole @ 10mg/kg b.wt. bid, Meloxicum @ 0.1mg per kg s/c. OD and Ranitidine @ 0.5mg per kg b.wt. i/m. BD; Ringer's Lactate solution @ 150ml i/v , 5%. Dextrose solution @ 200ml i/v twice daily and Vitamin B complex 1 ml i/v once daily for 5 days was administered. The operated site was dressed on alternate days with 5% Povidone iodine solution and protective Elizabethan collar was applied to prevent self-mutilation..The dog was restricted from oral food for first 3 days followed by allowing liquid food subsequently for next 4 days, then gradually changing to normal diet along with Prebiotic and probiotic preparations once daily for one week. Oral administration of laxative (Lactulose 10ml b.i.d.) from 5th post operative days was advised. The animal was clinically improved with regular passing of faeces from 3rd post operative days without any discomfort. The skin sutures were removed on 10th post operative day and the animal made an uneventful recovery.

Results and Discussion

The animal made an uneventful recovery after two weeks. Similar findings were reported by Jinesh Kumar (2007) also. Reported, the cases of gastrointestinal outflow disorders in dogs, particularly in Labrador Retriever We performed enterotomy as also suggested by Kamalakar *et al.* 2018.

Resection of ileo-colic sphincter is established procedure for correction of ileo-colic sphincter stricture but it poses problem of recurrence. The present case was avoided from such corrective resection keeping in view of high recurrence and only manual dilation of the sphincter served the corrective procedure without any complication for 6 months of observation period. The correct and accurate diagnosis, effective surgical interventions and optimum post operative care and management resulted to successful recovery of the present case.

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