

SURGICAL MANAGEMENT OF INTESTINAL FOREIGN BODY – A CASE STUDY

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A two year old male Spitz dog weighing 15 kg body weight was presented to the Department of Veterinary Surgery and Radiology, College of Veterinary Science, Tirupati with the history of swallowing a sewing needle. Radiographic examination revealed the presence of radiopaque foreign body in the intestine and was retrieved by enterotomy.

Keywords: Enterotomy, Metallic foreign body, Radioopaque.

Dogs ingest foreign bodies (FBs) that cause intestinal obstruction, which is one of the most common intestinal disorders requiring emergency surgical treatment. Small irregular or linear FBs can cause partial obstruction with limited passage of fluid or gas (Boag *et al.*, 2005). In intestinal obstruction, death may occur very quickly due to the secondary changes resulting from the obstruction. Common linear foreign bodies encountered in gastrointestinal tract of dogs and cats include thread, fabric, carpet, pantyhose, string and plastic (Evans *et al.*, 1994). Gastrointestinal foreign bodies have been previously reported to be linear in 36 per cent of canine cases and the survival rate is 98 percent (Boag *et al.*, 2005).

A two year old male Spitz dog weighing 15 kg body weight was presented to the Department of Veterinary Surgery and Radiology, College of Veterinary Science, Tirupati with the history of swallowing a sewing needle. On clinical examination the dog was active, with normal feeding and voiding habits. All physiological and haematological parameters were within the normal range. Radiographic examination revealed the presence of radiopaque foreign body in the intestine (Fig.1) and was decided to retrieve by enterotomy.

The animal was off-fed for 24 hours prior to surgery and was premedicated using Inj. Atropine sulphate at the dose rate of 0.04mg/kg body weight subcutaneously, sedated with Inj. Xylazine hydrochloride at

the dose rate of 1 mg/kg body weight intramuscularly and the anesthesia was maintained using Inj. Diazepam at the dose rate of 0.5mg/kg body weight along with Inj. Ketamine @ 10mg/kg body weight intravenously. The dog was positioned in dorsal recumbency and the area was prepared aseptically. A midventral incision was made on the skin and subcutis followed by linea-alba to expose the peritoneum. The intestines were examined to detect the foreign body and the needle was squeezed out. A nick incision was made on antimesenteric site and removed the needle along with thread (Fig.2). The incision was closed by simple interrupted suture using PGA of size 2/0. The abdominal cavity was flushed with normal saline to avoid contamination. The peritoneum and linea-alba were apposed by simple interrupted pattern using polyglactin 910 of size 1 followed by suturing subcutis with chromic catgut of size 0. The skin incision was closed in interrupted cross mattress pattern using braided silk of size 2/0.

Postoperatively the dog was administered with Inj. cefotaxime at the dose rate of 25mg/kg body weight for seven days and Inj. meloxicam at the dose rate of 0.2 mg/kg body weight for 3 days. Fluid therapy was given for first 48 hours after surgery, followed by liquid diet for next three days. The animal started taking normal diet after one week of surgery. The skin sutures were removed on 10th postoperative day and the animal recovered uneventfully.



Fig.1: lateral abdomen radiograph showing sewing needle in the abdomen

Linear foreign bodies may cause increased peristaltic activity proximal and distal to the obstruction site and contribute to intestinal wall laceration. However, the present case with linear foreign body along with traumatic metallic foreign body was presented early and there was no evidence of clinical signs like intestinal obstructions and intestines were normal. Earlier Srinivasmurthy *et al.* (2011) reported linear foreign body extending from base of the tongue to anus in a Spitz dog, where as in the present case linear foreign body along with traumatic metallic foreign body was found in the small intestine of the Spitz dog. Radiolucent foreign body diagnosis was challenging as also reported by Ragavender *et al.* (2008) and contrast radiography with barium was helpful in diagnosis as also mentioned by Srinivasmurthy *et al.* (2011) of radiolucent foreign body. In the present case, radioopaque metallic sewing needle was clearly visible on survey radiography.

Successful surgical management of



Plate-2: Sewing needle with thread recovered from abdomen

intestinal traumatic metallic foreign body with a thread in a Spitz dog has been placed on record.

References

- Boag, A.K., Coe, R.J., Martinez, T.A. and Hughes, D. (2005) Acid-base and electrolyte abnormalities in dogs with gastrointestinal foreign bodies. *J. Vet. Int. Med.*, **19**: 816-821.
- Evans, L.K., Smeak, D.D. and Biller, D.S. (1994). Gastrointestinal linear foreign bodies in 32 dogs: A retrospective evaluation and feline comparison. *J. Am. Anim. Hosp. Assoc.*, **30**: 445-450.
- Ragavender, K.B.P., Mahadeva Rao, T. and Bharati, S. (2008). Abdominal radiography for diagnosis of intestinal obstruction in dogs: A report of seven cases. *Indian J. Vet. Surg.*, **29**: 37.
- Srinivasmurthy, K.M., Manjunatha, D.R. and Ranganath, L. (2011). Intestinal obstruction in a dog. *Indian Vet. J.*, **88**(7): 68-69.