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Surgical removal of intestinal foreign bodies in a dog

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Abstract
A 10 month old German shepherd dog was presented with a complaint of ingestion of foreign bodies. Clinical assessment revealed the animal to be active and in no pain or distress. A survey radiograph was taken in the lateral and ventrodorsal views, and it showed that the intestines contained radiopaque foreign materials. To remove the foreign bodies, enterotomy was decided upon. Anaesthesia was achieved by administration of xylazine Hcl @ 1 mg/kg bwt. and ketamine Hcl 5 mg/kg bwt. intramuscularly. Following surgery, antibiotics and painkillers were kept up, and daily dressing was suggested. The animal recovered uneventfully and without any complications.

Keywords: Foreign bodies, enterotomy, German shepherd dog

Introduction
In small animal practise, surgical intervention to remove intestinal foreign materials is prevalent. Their indiscriminate feeding habits are to reason for them ingesting foreign bodies (Ellison, 1990) [1]. Canines of all ages are impacted, but typically young dogs consume a wide range of nonlinear foreign bodies (Capak *et al*., 2001) [2]. Depending on the location, severity, and length of the obstruction, animals may exhibit a range of clinical symptoms (Aronson *et al*., 2000) [3]. Various treatment options have been suggested depending on the type of foreign material and the possibility of gastrointestinal tract obstruction (Pratt *et al*., 2014) [4]. Depending on the size of the foreign body, blockage from gastrointestinal foreign bodies can be either complete or partial.

Case history
A 10-month-old male German shepherd was presented to the Department of Veterinary Surgery and Radiology, CVSc & AH, OUAT, Bhubaneswar, with a complaint of ingestion of foreign bodies. On clinical examination, there was no pain on palpation or discomfort, and the animal was seen to be active. A plain radiograph in lateral (Fig.1) and ventrodorsal (Fig.2) views was done and confirmed the presence of radiopaque foreign bodies (nail and marble stone) in the intestine. So it was decided to go for an enterotomy to remove the foreign bodies.

Surgical treatment
The animal was anaesthetised with xylazine @ 1mg/kg b.wt. and ketamine @ 5mg/kg b.wt. IM. The surgical site was prepared aseptically by shaving the midventral line of the abdomen. Subcutaneous tissue, linea alba, and the peritoneum were separated from one another by a linear ventral midline incision. Foreign bodies were detected (Fig.3) and externalised to the incision site after being introduced into the abdomen. At the antimesentric boundary of the mass, an enterotomy incision was made, and a foreign body (marble stone) was removed (Fig.4). After a thorough cleaning, the enterotomy incision was closed with chromic catgut no. 2-0 in a cushings suture pattern (Fig.5). Since continued GIT peristalsis may result in the perforation, another foreign body (nail) was immediately identified with the aid of the C-arm, and the same steps were taken to extract the nail as the previous one (Fig.6). With sterile saline, the peritoneal cavity was adequately flushed. Reposition the viscera was done into the abdominal cavity. The peritoneum and muscles were closed with a simple continuous pattern of polyglactin 910 (Vicryl); the subcutaneous layer was closed with a simple continuous pattern of polyglactin 910 (Vicryl); and the skin was closed with a horizontal mattress of synthetic monofilament nylon (Trulon). The wound was cleaned and dressed.

Post-operative management
Following surgery, a 5-day course of Ceftriaxone and Tazobactum at a dose rate of 20 mg/kg

BW was administered, followed by 3 days of meloxicam at a dose rate of 0.5 mg/kg BW. The animal was kept on intravenous fluids for three days before starting oral nutrition on the fourth day after surgery, beginning with liquid and gradually progressing to semisolids and solids. Laxatives (cremaffin) were given orally for 3 days. Every other day, the wound was dressed, and skin sutures were removed on the 14th day. The animal had an uneventful recovery.

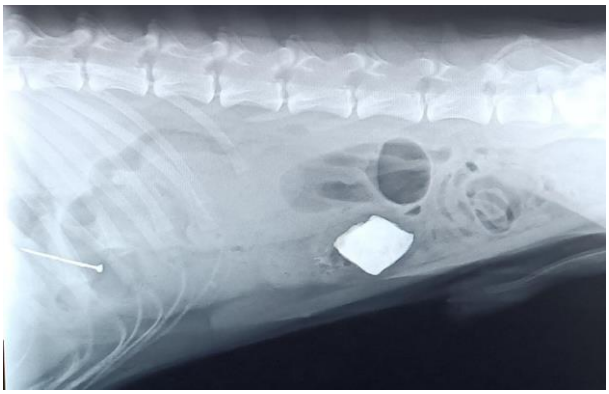

Fig 1: Lateral view radiograph showing foreign bodies

Fig 2: Ventrodorsal view showing presence of foreign bodies

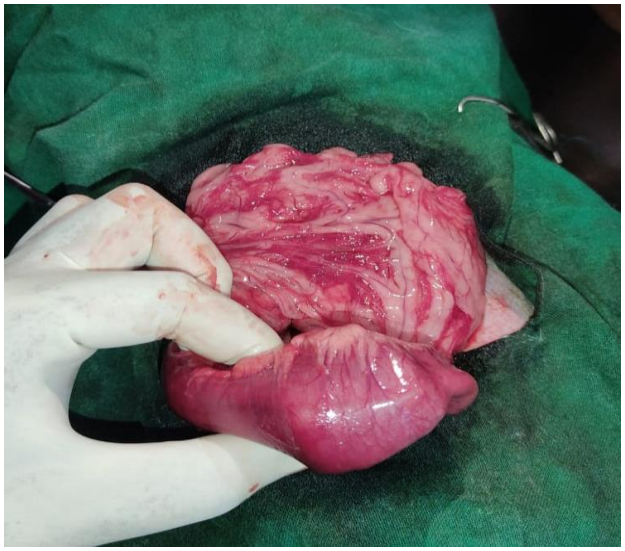

Fig 3: Foreign bodies were detected and externalised to the incision site

Fig 4: A foreign body was extracted after enterotomy incision

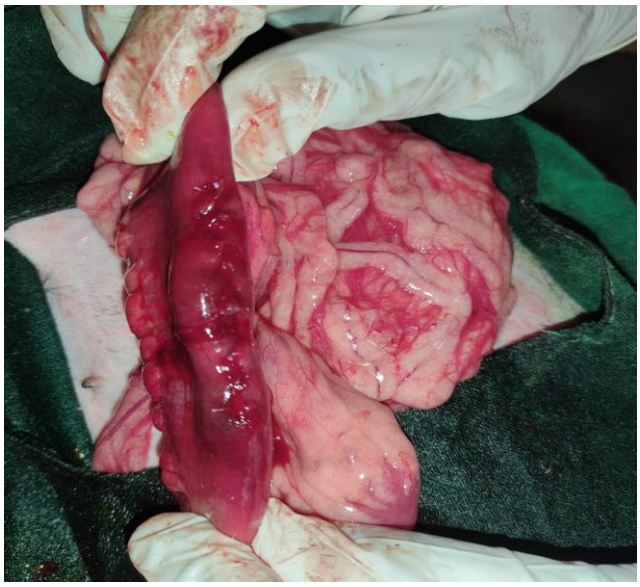

Fig 5: Enterotomy incision was closed using chromic catgut 2-0

Fig 6: Extracted foreign bodies (marble stone and nail)

Conclusion

Due to hypersecretion and sequestration inside the digestive tract, gastrointestinal blockage causes abnormalities in fluid balance, acid-base status, and electrolyte levels. These complications are made worse by vomiting and reduced oral intake of fluid and minerals and resulting stress (Boag *et al.*, 2005; Sahu *et al.*, 2019; Satapathy *et al.*, 2022) [5, 6, 7]. Young male dogs have a very high incidence rate of GIT obstruction because of their lively, indiscriminate feeding habits (Kumar *et al.*, 2000) [8]. The foreign body is removed by performing an enterotomy at the antimesenteric boundary distal to it. Such incisions like over the foreign body or close to the obstruction in the distended intestine are not indicated because they may interfere with normal intestinal healing, maybe due to some degree of vascular compromise of the intestinal wall (Orsher and Rosin, 1993; Das *et al.*, 2015) [9, 10]. Dehiscence of the enterotomy incision, which causes intestinal contents to flow into the peritoneal cavity and cause peritonitis, is one of the most frequent and deadly consequences following the removal of a foreign material (Papazoglou *et al.*, 2003) [11]. In this instance, there were no difficulties noted, and the animal made a complete recovery.

Reference

1. Ellision GW. Enterotomy in current technique in small animal surgery, edited by Mjoseph Bojrab, 3rd Saunders company, Phildelphia; c1990. p. 249.
2. Capak D, Simpraga M, Maticic D. Incidence of foreign body–induced ileus in dogs. Berl Munch Tierarztl Wochenschr. 2001;114:290-296.
3. Aronson LR, Brockman DJ, Brown DC. Gastrointestinal emergencies. Vet. Clin. N. Am-Small. Anim. Pract. 2000;30(3):555-579.
4. Pratt CL, Reineke EL, Drobatz KJ. Sewing needle foreign body ingestion in dogs and cats: 65 cases. J Am. Vet. Med. Assoc. 2014;245(3):302-308
5. Boag AK, Coe RJ, Martinez TA, Hughes D. Acid-base and electrolyte abnormalities indogs with gastrointestinal foreign bodies. J Vet. Intern. Med. 2005;19(6):816-821.
6. Sahu S, Mishra SR, Behera SS, Mishra C, Mohapatra S, Dalai N, *et al*. Impact of heat challenge on expression dynamics of HSP90 in cardiac cells of goat. Biological Rhythm Research; c2019. p. 1-7. https:// doi.org/10.1080/09291016.2019.1672018.
7. Satapathy PP, Mishra SR, Patnaik S, Behera SS, Mishra C, Kundu AK. Transcription pattern of key molecular chaperones in heat shocked caprine cardiac fibroblasts. Animal Biotechnology; c2022. p. 1-8. https://doi.org/10.1080/10495398.2022.2043886.
8. Kumar DD, Ameerjan K, David WA. Gasrto intestinal tract obstruction in dogs. I. J Ver. Sur. 2000;21:43-44.
9. Orshe RJ, Rosin E. Small intestine, in Slatter DH Textbook of Small Animal Surgery, Philadelphia, WB Saunders. 2nd ed; c1993. p. 593-612.
10. Das J, Nath I, Routray P, Das RK, Behera SS. Cell-based therapy and rehabilitation with prosthetic limbs in a dog. Turkish Journal of Veterinary & Animal Sciences. 2015;39(1):115-9.
11. Papazoglou LG, Patsikas MN, Rallis T. Intestinal foreign bodies in dogs and cats. Compendium of Continuing Education for the Practicing Veterinarian. 2003;25:830-843.