



E-ISSN: 2320-7078

P-ISSN: 2349-6800

[www.entomoljournal.com](http://www.entomoljournal.com)

JEZS 2022; 10(6): 176-178

© 2022 JEZS

Received: 01-08-2022

Accepted: 05-09-2022

**Sowjanya S**

Sri Venkateswara Veterinary  
University, NTR College of  
Veterinary Science,  
Gannavaram, Andhra Pradesh,  
India

**Ajay Verma**

College of Veterinary Science,  
PVNRTVU, Rajendranagar,  
Telangana, India

**Anjali K**

Sri Venkateswara Veterinary  
University, College of Veterinary  
Science, Proddatur, Andhra  
Pradesh, India

**Rahul**

College of Veterinary Science,  
PVNRTVU, Telangana, India

**Yamuna B**

College of Veterinary Science,  
PVNRTVU, Rajendranagar,  
Telangana, India

**Srinivas A**

College of Veterinary Science,  
PVNRTVU, Rajendranagar,  
Telangana, India

**Eswari K**

College of Veterinary Science,  
SVVU Tirupati, Andhra  
Pradesh, India

**Muralidhar D**

College of Veterinary Science,  
PVNRTVU, Rajendranagar,  
Telangana, India

**Corresponding Author:**

**Sowjanya S**

Sri Venkateswara Veterinary  
University, NTR College of  
Veterinary Science,  
Gannavaram, Andhra Pradesh,  
India

## Diagnosis and surgical management of gastric and duodenal foreign bodies in a 15 month old male Alaskan husky: A case report

**Sowjanya S, Ajay Verma, Anjali K, Rahul, Yamuna B, Srinivas A, Eswari K and Muralidhar D**

**DOI:** <https://doi.org/10.22271/j.ento.2022.v10.i6c.9115>

### Abstract

A 15 months old male Alaskan husky weighing 28 kg was presented to the hospital with a history of acute onset of frequent emesis and not passing stools which had persisted for 5 days, on physical examination animal was in dull mentation having lethargy and generalised malaise. Clinical examination revealed that prolonged capillary refill time and skin tenting time. Haemato-biochemical profile revealed mild granulocytosis and increased packed cell volume. Plain abdominal radiography revealed two large radiopaque foreign bodies in the stomach and proximal portion of intestinal loops. Immediately we performed exploratory laparotomy followed by gastrotomy, enterotomy and retrieved two large sized thick rubber objects which obstructed the stomach and a portion of duodenal lumen completely. The animal have shown an uneventful recovery after 1 week of proper postoperative care, fluid and antibiotic therapy.

**Keywords:** Dog, foreign body, gastrotomy, enterotomy

### Introduction

A gastric foreign body is anything ingested by an animal that cannot be digested (i.e rocks, plastic) or that is slowly digested (bones). Linear foreign bodies usually are pieces of string, yarn, thread, cloth or dental floss. Gastric foreign bodies usually cause vomiting because of outflow obstruction, gastric distension, and/or mucosal irritation. Occasionally, however gastric foreign bodies are asymptomatic, incidental findings on abdominal radiographs. Dogs are indiscriminate eaters and often ingest plastic toys, rocks, cooking bags, and other objects. Noxious stimuli or distension of the duodenum or pyloric antrum stimulates vomiting, whereas similar stimulation of the gastric foreign body often does not. Therefore vomiting often is intermittent, occurring when the object gets forced into the pyloric antrum. The consequence of gastrointestinal obstruction includes disturbances in the fluid balance, acid-base status, and serum electrolyte concentrations resulting from hyper secretion and sequestration within the gastrointestinal tract, which further gets aggravated by vomiting and impaired oral intake of fluid and nutrients (Boag *et al.*, 2005) <sup>[1]</sup>. Ingestion is considered as the most important mode of foreign body entry in small animals (Hunt *et al.*, 2004) <sup>[4]</sup>. Diagnosis of intestinal obstruction can be made based on clinical signs, radiography, and ultrasonography. Preoperative management of gastrointestinal obstruction focuses on correcting electrolyte imbalances and restoring circulating volume. This paper reports the diagnosis and surgical management of gastric and duodenal foreign bodies in a 15months old male Alaskan husky.

### Case history and observations

A 15 month old male Siberian husky weighing 28 kg was presented to Dr. Dog Pet Hospital Hyderabad, with a complaint of acute onset of frequent emesis, anorexia, lethargy and no passage of stools which had persisted for 5 days prior to presentation. On physical examination animal was in dull mentation with lethargy and generalised malaise. Clinical examination revealed prolonged capillary refill time and skin tenting time. Haemato-biochemical profile revealed mild granulocytosis and increased packed cell volume.

Plain abdominal radiography revealed two large radiopaque foreign bodies in the stomach and proximal portion of bowel segments (Fig 1).

### Treatment and Discussion

Based on the radiographic findings the case was diagnosed as gastro-intestinal foreign body obstruction and planned for exploratory laparotomy. The animal was placed in dorsal recumbency and the surgical site (i.e mid ventral abdomen) extending from post xiphoid to pubis was prepared aseptically and preoperative fluid therapy with normal saline was initiated. The dog was premedicated with inj. atropine @ 0.04mg/kg S/C and sedated with a mixture of xylazine @ 1 mg/kg and ketamine @ 5 mg/kg I/V and maintained with 0.5% isoflurane inhalation anaesthesia till recovery. The mid ventral abdominal incision was made from caudal xiphoid to umbilicus and the stomach was exteriorized to the incision site and the foreign body was identified. The gastric incision was made by moving the foreign body to the least vascular area on greater curvature (Fig 2) and carefully retrieved. And the incision was closed in double inversion pattern (i.e cushings followed by lamberts) using 3-0 vicryl. On further exploration one more foreign body was identified in the duodenum which was completely obstructing the lumen (Fig 3) causing complete collapse of the distal segments. The incision was made by anchoring the foreign body to the site and removed carefully using forceps. The foreign objects were found to be two large rubber objects (Fig 4) the incision was closed in simple continuous pattern using 3-0 Vicryl. The abdomen was moderately lavaged using sterile normal saline and metronidazole. The abdominal incision was closed in three layers in a routine manner. Post operatively the animal was completely on off food and water for 5 day and treated using parenteral antibiotic cefovecin @ 8 mg/kg S/C one dose and NSAID's like melonex @0.2 mg/kg S/C for 3 days and supportive multivitamin injections. Intravenous fluids therapy started from the day of surgery using Inj. RL @ 10 ml/kg and DNS @ 10 ml/kg BID until 5 days. Antiseptic dressing of the incision site was done on every alternate day and sutures were removed on 12<sup>th</sup> postoperative day. The animal was allowed on small quantities of liquid diet from 5<sup>th</sup> day onwards and slowly allowed on solid food after 1week. The animal was uneventfully recovered within 2 weeks without any postoperative complications.

Gastrointestinal foreign body obstruction can be either complete or partial in nature. Acute onset of clinical signs is observed in complete obstruction, which may deteriorate rapidly if not intervened (Sériot *et al.*, 2021) [6]. In the present case one foreign body obstructed the portion of duodenum completely. Most ingested foreign bodies pass uneventfully through the gastrointestinal tract, however, some may result in signs such as regurgitation, vomiting, diarrhoea, or signs of small intestinal obstruction thus alerting the owner to note that something is wrong. Present case have shown acute onset of severe vomitions because of complete obstruction of portion of duodenal lumen. Enterotomy is found to be the most effective treatment for intestinal foreign body obstruction. Dogs commonly ingest materials like stones, plastic, and rubber objects are in similar to the findings of (Banu *et al.* 2022) [2]. Treatment was found to be more successful in dogs below two years of age. The abdominal palpation gives some clue for the diagnosis. Radiography is commonly used in suspected gastrointestinal foreign bodies but plain abdominal radiographs may be unremarkable in

many cases and abdominal ultrasonography may be required to confirm the diagnosis (Hoday *et al.*, 2014) [5]. In the case of gastrointestinal tract surgery, the higher mortality rate is mainly due to complications like intra-operative spillage, wound dehiscence, or perforations in the lower small intestine or colon (Ellison *et al.*, 2011) [3]. In contrast to skin wounds, dehiscence of the gastrointestinal tract wounds mainly creates generalized bacterial peritonitis and can even lead to mortality. Therefore, factors that negatively affect the healing of gastrointestinal tract are of great clinical significance.



**Fig 1:** Plain abdominal radiograph showing two radio-opaque foreign bodies



**Fig 2:** Greater curvature of stomach showing foreign body



**Fig 3:** Foreign body causing complete obstruction of duodenal lumen and collapse of distal intestinal segments



**Fig 4:** Showing retrieved foreign bodies (Rubber objects)

### Conclusion

In conclusion, proper diagnosis of gastro-intestinal foreign body using plain and /or contrast radiography and ultrasonography in dogs followed by appropriate selection of anaesthetic and surgical technique with adequate intensive post-operative follow-up is essential for successful management. The present paper reports the diagnosis and successful surgical management of gastrointestinal obstruction in a 15 month old Alaskan husky. Timely diagnosis and prompt surgical treatment helped to prevent the mortality associated with foreign body obstruction. Post-operative management also plays a significant role in deciding the surgical outcome.

### References

1. Boag AK, Coe RJ, Martinez TA, Hughes D. Acid-base and electrolyte abnormalities in dogs with gastrointestinal foreign bodies. *Journal of Veterinary Internal Medicine*. 2005;19(6):816-821.
2. Banu S, Amitha, Khan Sharun, Pillai Ajith, Dharma Kuldeep, Pawde Abhijit, *et al*. Surgical management of intestinal foreign body obstruction in a dog. *The Indian Veterinary Journal*. 2022;98:29-31.
3. Ellison GW. Complications of gastrointestinal surgery in companion animals. *Vet. Clin. Small Anim. Pract*. 2011;41(5):915-934.
4. Hunt GB, Worth A, Marchevsky A. Migration of wooden skewer foreign bodies from the gastrointestinal tract in eight dogs. *J Small Anim. Pract*. 2004;45(7):362-367.
5. Hobday MM, Pachtinger GE, Drobatz KJ, Syring RS. Linear versus non-linear gastrointestinal foreign bodies in 499 dogs: clinical presentation, management and short-term outcome. *Journal of Small Animal Practice*. 2014;55:560-565.
6. Seriot P, Dunie-Merigot A, Trehiou CB, Blond L, Bernardin F, Poujol L, *et al*. Treatment and outcome of spontaneous pneumothorax secondary to suspected migrating vegetal foreign body in 37 dogs. *Vet. Rec*. 2021;189(4):e22.