



SHORT COMMUNICATION

## Esophageal Obstruction Caused by a Sheep Bone in a Dog: Surgical Management and Outcome

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### ABSTRACT

A two-year-old male German Shepherd dog weighing 35 kg was presented with a history of persistent retching and regurgitation following ingestion of sheep bones. Clinical examination revealed moderate dehydration, while other physiological parameters were within normal limits. Survey radiography of the thorax and cranial abdomen revealed a radiopaque foreign body lodged in the caudal esophagus, consistent with a bone. Owing to failure of conservative management, surgical intervention was undertaken. The dog was stabilized and subjected to exploratory surgery, during which the esophageal foreign body was successfully retrieved. Postoperative management included fluid therapy, antibiotics, analgesics, and gradual reintroduction of oral feeding. The dog recovered uneventfully without postoperative complications. This case highlights the importance of early diagnosis using radiography and prompt surgical intervention for successful management of esophageal foreign bodies in dogs.

### HIGHLIGHTS

- Foreign body syndrome in dogs.
- Early diagnosis using radiography and prompt surgical intervention for successful manage foreign body syndrome in dogs.

**Keywords:** Dog, Esophageal foreign body, Sheep bone, Esophageal obstruction, Surgical management

Foreign body ingestion is a frequently encountered clinical problem in canine practice, particularly in young and large-breed dogs with indiscriminate eating habits (Papazoglou *et al.*, 2003; Fossum, 2019). Bones, toys, and household objects are commonly implicated, with bones being especially problematic due to their irregular shape and tendency to lodge at anatomical narrowing points of the esophagus (Mathews, 2008). The caudal esophagus is a common site of obstruction because of its proximity to the esophageal hiatus and reduced distensibility at this level (Hedlund and Fossum, 2007).

Clinical signs associated with esophageal foreign bodies include vomiting, regurgitation, hypersalivation,

anorexia, and varying degrees of dehydration. Persistent obstruction can result in serious complications such as esophagitis, ulceration, perforation, mediastinitis, and subsequent stricture formation if not addressed promptly (Papazoglou *et al.*, 2003; Tobias and Johnston, 2012). Survey radiography remains a valuable diagnostic tool, particularly for radiopaque foreign bodies such as bones, while contrast studies and endoscopy may be required in selected cases (Willard, 2012).

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Endoscopic retrieval is considered the treatment of choice for esophageal foreign bodies when available; however, surgical intervention is indicated when endoscopy is unsuccessful, unavailable, or when the foreign body is firmly impacted (Fossum, 2019). Gastrotomy-assisted retrieval offers indirect access to caudal esophageal foreign bodies and avoids direct esophageal incision, thereby minimizing postoperative complications. The present report describes successful surgical management of a caudal esophageal bone foreign body in a dog using gastrotomy.

### Case History and Clinical Examination

A 2-year-old male German Shepherd dog, weighing 35 kg, was presented with a history of continuous vomiting for several days, which persisted despite prior medical treatment. The owner reported feeding the dog sheep bones a few days before the onset of clinical signs.

On clinical examination, the dog was bright, alert, and responsive, with moderate dehydration as evidenced by prolonged skin tenting and tacky mucous membranes. Rectal temperature, heart rate, and respiratory rate were within normal physiological limits. Abdominal palpation did not elicit pain or reveal distension.

Survey abdominal radiography revealed a well-defined radiopaque structure lodged in the caudal esophagus, consistent with a bone foreign body (Fig. 1). Based on the clinical history and radiographic findings, a diagnosis of esophageal foreign body obstruction was made, and surgical intervention was planned.

The dog was premedicated with xylazine hydrochloride @ 0.7 mg/kg body weight intramuscularly and butorphanol tartrate @ 0.2 mg/kg body weight intramuscularly. General anesthesia was induced using ketamine hydrochloride @ 5 mg/kg body weight intravenously in combination with diazepam @ 0.2 mg/kg body weight intravenously. Anesthesia was maintained with isoflurane at a concentration of 3% in oxygen at a flow rate of 1 L/min using a semi-closed breathing system.

Intraoperative fluid therapy was administered using Ringer's lactate solution @ 10 ml/kg/hour intravenously to correct dehydration and maintain circulatory stability.

Following routine aseptic preparation, a cranial midline laparotomy was performed. The stomach was exteriorized

carefully, and a gastrotomy incision was made sufficiently large to allow passage of the surgeon's hand. The foreign body lodged in the caudal esophagus was palpated, manually grasped, and gently retrieved through the gastric incision without the need for esophagotomy (Fig. 2).

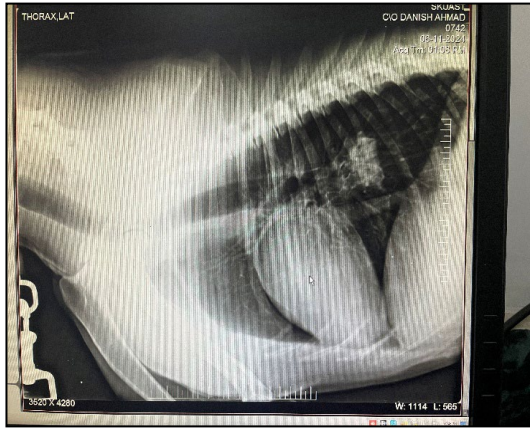
After ensuring complete removal and ruling out additional foreign material, the gastrotomy incision was closed in two layers using polyglactin 910 (Vicryl®) 3-0 in a standard inverting pattern (Fig. 3). The abdominal wall was closed routinely in layers (Fig. 4).

Postoperatively, the dog recovered smoothly from anesthesia. Supportive therapy, including intravenous fluids, antibiotics, and analgesics, was continued as per standard postoperative protocol. Oral feeding was withheld initially to allow gastrointestinal rest, and a liquid diet was introduced gradually on the third postoperative day. Vomiting resolved completely, and the dog exhibited a satisfactory clinical recovery.

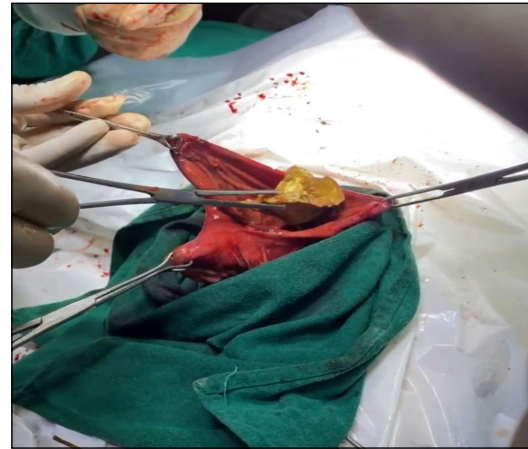
Esophageal foreign bodies constitute a surgical emergency in dogs and require early diagnosis and intervention to prevent potentially life-threatening complications. In the present case, ingestion of sheep bones resulted in obstruction of the caudal esophagus, leading to persistent vomiting and dehydration. Bones are among the most frequently reported esophageal foreign bodies in dogs due to their rigidity, sharp edges, and tendency to lodge at anatomical narrowing sites (Mathews, 2008; Papazoglou *et al.*, 2003).

Radiographic examination played a crucial role in diagnosis, as bone foreign bodies are typically radiopaque and easily identified on survey radiographs (Willard, 2012). Although endoscopic removal is preferred due to its minimally invasive nature, surgical intervention becomes necessary when the foreign body is firmly lodged or when endoscopy is not feasible (Fossum, 2019). In the present case, gastrotomy provided a safe and effective approach for removal of the foreign body without performing an esophagotomy.

Gastrotomy-assisted retrieval is particularly advantageous for caudal esophageal foreign bodies, as it reduces direct trauma to the esophageal wall and lowers the risk of postoperative complications such as leakage, infection, and stricture formation (Hedlund and Fossum, 2007; Tobias and Johnston, 2012). Early surgical intervention,



**Fig. 1:** Lateral abdominal radiograph showing a radiopaque foreign body consistent with a sheep bone lodged within caudal esophagus



**Fig. 2:** Retrieved sheep bone foreign body following gastrotomy



**Fig. 3:** Surgical closure of the stomach



**Fig. 4:** Surgical closure of the stomach

appropriate anesthetic management, and careful tissue handling contributed to the uneventful recovery observed in this dog.

Postoperative management, including gastrointestinal rest followed by gradual reintroduction of a liquid diet, is essential for optimal healing and prevention of complications (Boag and Hughes, 2005). The favorable outcome in this case underscores the importance of prompt surgical management and highlights gastrotomy as a reliable technique for managing caudal esophageal foreign bodies in dogs.

## REFERENCES

- Boag, A.K. and Hughes, D. 2005. Emergency management of gastrointestinal obstruction in dogs and cats. *J. Feline Med. Surg.*, **7**(2): 73–82.
- Burkitt, J.M., Huber, D.J. and Steiner, J.M. 2009. Linear foreign body obstruction in cats: Clinical findings and surgical outcome. *J. Feline Med. Surg.*, **11**(5): 395–400.
- Fossum, T.W. 2019. *Small Animal Surgery*, 5<sup>th</sup> edn. Elsevier, St. Louis.
- Hedlund, C.S. and Fossum, T.W. 2007. Surgery of the digestive system. In: Fossum, T.W. (Ed.), *Small Animal Surgery*, 3<sup>rd</sup> edn. Elsevier, St. Louis, pp. 378–425.



- Mathews, K.G. 2008. Intestinal foreign bodies in small animals. *Vet. Clin. North Am.: Small Anim. Pract.*, **38**(6): 1237–1253.
- Papazoglou, L.G., Patsikas, M.N. and Rallis, T. 2003. Gastrointestinal foreign bodies in dogs and cats. *Compend. Contin. Educ. Pract. Vet.*, **25**(11): 830–842.
- Tobias, K.M. and Johnston, S.A. 2012. *Veterinary Surgery: Small Animal*, Vol. 2. Elsevier, St. Louis.
- Willard, M.D. 2012. Diagnostic imaging of gastrointestinal disease in small animals. *Vet. Clin. North Am.: Small Anim. Pract.*, **42**(4): 777–798.