

Endoscopic retrieval of oesophageal foreign body in a Shih-tzu dog

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Abstract

A 9 month old, female Shih-tzu dog was presented with history of vomiting and anorexia for a period of 2 days following feeding with chicken bones. Deworming and vaccination were regular. Survey radiography revealed radio-opaque structures in the thoracic oesophagus close to the base of the heart. Endoscopy was performed to visualize and retrieve the bones. The foreign body was successfully recovered using laparoscopic forceps under the guidance of endoscope. The pup was treated for oesophagitis and pup had uneventful recovery.

Keywords: esophageal foreign body, chicken vertebrae, dog, endoscopy

Foreign bodies in the upper gastrointestinal tract are common in dogs and an oesophageal foreign body is an emergency. Acute signs such as choking, retching, coughing, vomiting, regurgitation should prompt consideration of a gastrointestinal foreign body. Bones are the most frequently reported foreign bodies. Foreign bodies lodged in the oesophagus, stomach, and proximal duodenum can be removed endoscopically. Earlier endoscopic intervention can prevent the damage to the oesophageal mucosa, necrosis, and other secondary complications. The advantages of endoscopic removal include low invasiveness, high success rates, and shorter procedure times compared to surgical methods (Poggiani *et al.*, 2020)

Nine months old female Shih-tzu dog weighing 5 kg was presented with the complaint of vomiting undigested food, unable to drink water for a period of two days following feeding of chicken bones. Clinical examination revealed retching and respiratory distress.

Survey radiography showed radio-dense material in the thoracic oesophagus and near the base of the heart (Fig. 1 A and B). Endoscopy examination was carried out using video-gastroscope. The animal was anaesthetised using a combination of xylazine (@ 1 mg/ kg B.wt) with ketamine (@ 10mg/kg B.wt) and maintained using propofol (@ 5mg/ kg B. wt). The endoscope was introduced through the oral cavity and guided toward the dorsal-caudal region of the epiglottis. With insufflation of air through the equipment, the pharyngoesophageal junction was traversed, allowing visualization of the oesophageal lumen. Fairly bigger bone piece was found struck in the thoracic oesophagus and manoeuvring with endoscopic grasping forceps was not effective. Laparoscopic forceps was passed parallel to the endoscope probe and two chicken vertebrae were retrieved successfully from the esophagus (Fig. 2 A, B and C). The dog was administered with amoxycillin (@7 mg/kg B.wt), pantoprazole (@ 1 mg/kg B. wt), and Ringers lactate (@10ml/kg body wt).

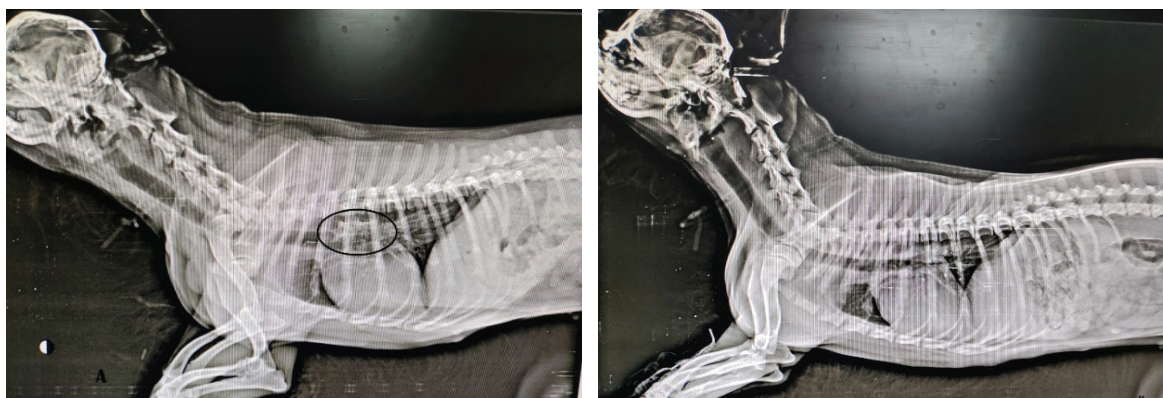


Fig. 1 Lateral X-ray of the dog showing radiopaque structure (circle) in the caudal esophagus (A), absence of the same after retrieval (B)



Fig. 2 Endoscopic retrieval procedure; A. holding the bone with forceps (arrow); retrieval of the bone (B and C)

Young, small breed dogs are overrepresented for oesophageal foreign bodies, with frequently reported breeds including terriers, Shih -Tzus and Chihuahuas. The most commonly reported location is the caudal oesophagus between the heart base and diaphragm. Other common sites include just caudal to the pharynx, the thoracic inlet, and the heart base. Radiographs are commonly used in the initial diagnostic evaluation of dogs with suspected oesophageal foreign bodies. Endoscopic removal is favoured for its low invasiveness, high success rate, and shorter procedure time compared to surgery. Endoscopic removal can occasionally lead to complications such as perforation, hemorrhage, respiratory issues from esophageal perforation, and esophageal stenosis (Thompson *et al.*, 2012). Nine

months old female Shih-tzu dog presented with oesophageal foreign body was successfully retrieved with endoscopy.

References

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