

OESOPHAGOTOMY IN SHIH TZU DOG

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A one-year-old Shih Tzu was presented to the Department of Veterinary Surgery and Radiology, Veterinary College, Hebbal, Bangalore, with the history of continuous vomiting and anorexia from three days. Physical examination confirmed foreign body obstruction in the mid-cervical esophageal region. Radiography revealed presence of a large radio-dense foreign body in the region of mid-cervical oesophagus. The case was diagnosed as oesophageal obstruction. Attempts to remove the foreign body manually using throat forceps under general anaesthesia were unsuccessful due to the large size of the foreign body. Oesophagotomy was performed through midline approach. A relatively large bone piece was removed from the lumen of the esophagus. Post-operative treatment included antibiotics and analgesics, with fluid therapy for 5 days. The dog recovered uneventfully.

Keywords: Oesophageal obstruction, Oesophagotomy.

Foreign bodies in the oesophagus are common in dogs and they can have serious consequences in terms of patient morbidity, mortality and cost of treatment (Pollock, 1969). Commonly observed complications that are associated with oesophageal foreign bodies include esophagitis, esophageal perforation, aspiration pneumonia and esophageal stricture formation. (Luthi *et al.*, 1998). Less common and more severe complications include pneumothorax, pneumomediastinum, pleural effusion, pyothorax, hemothorax, pneumonitis, bronchoesophageal fistula, aorto-esophageal fistula, cardiopulmonary arrest and death (Spielman *et al.*, 1992). Endoscopic retrieval has advantages like the avoidance of invasive thoracotomy or laparotomy, significant cost reduction and faster time to recovery (Zimmer, 1984).

Case History and Observations

A one-year-old Shih Tzu was presented to the Department of Veterinary Surgery and Radiology, Veterinary College, Hebbal, Bangalore, with the history of continuous vomiting and anorexia from three days. On examination of the throat region, a hard swelling was palpable. On abdominal palpation, no abnormalities were detected and

the dog did not evince any pain. Radiography revealed presence of a large radio-dense foreign body in the region of mid-cervical oesophagus (Fig.-1). Attempts to remove the foreign body manually using deep throat forceps under general anaesthesia were unsuccessful due to the large size of the foreign body. Hence, it was decided to perform an oesophagotomy to relieve the obstruction.

Surgical Treatment

Pre-operative antibiotic (Ceftriaxone at 25mg/kg body weight, intravenous) and analgesic (Meloxicam at 0.2 mg/kg body weight, subcutaneous) were administered 30 minutes prior to the procedure. The dog was premedicated with Atropine sulphate at 0.04 mg/kg body weight (subcutaneous) and Xylazine hydrochloride at the rate of 1 mg/kg body weight (I/M). The dog was anaesthetized with intravenous thiopentone sodium (2.5%) at the dose of 12.5 mg/kg body weight. The surgical site (mid-ventral neck region) was prepared aseptically. Incision was made through skin and subcutaneous tissue. The right and left sternocephalicus muscles were bluntly separated. The right and left sternohyoideus muscles were separated and trachea was pushed to the right to expose the oesophagus

completely. The oesophagus was exteriorized. A longitudinal incision was made through all the layers of the oesophagus and the foreign body was revealed to be a bone (Fig.-2). It was removed carefully (Fig.-3.) and the oesophageal incision was sutured using Chromic catgut No. 2-0 with simple interrupted sutures with the knots oriented inside the oesophageal lumen. The separated sternocephalicus and sternohyoideus muscles were reapposed using Chromic Catgut No. 2-0 with simple interrupted sutures. Subcutaneous tissue was sutured using Chromic Catgut No. 2-0 in a continuous fashion. Skin sutures were placed with monofilament non-absorbable polyamide

sutures material (Reylon) of size 1-0 in a cross-mattress pattern. The surgical wound was dressed.

The animal was kept off oral feeding and maintained on intravenous fluids, antibiotics (Ceftriaxone at 25mg/kg body weight, intravenous) and analgesic (Meloxicam at 0.2 mg/kg body weight, subcutaneous) for 5 days. Liquid diet was given for the next 2 days, followed by semisolid diet for the next 2 days. The dog was back on its regular diet by the 10th day post-operative. Sutures were removed on the 11th day post-operative. The animal made an uneventful recovery and no complications were reported.



Fig.1. RADIOGRAPH SHOWING RADIO-DENSE FOREIGN BODY IN CERVICAL OESOPHAGU



Fig.2. BONE IN THE OESOPHAGUS



Fig.3. LARGE BONE FRAGMENT REMOVED FROM OESOPHAGUS

Results and Discussion

In canines, bones and their fragments are the most common cause of oesophageal obstruction ranging from 47% to 100% as also mentioned in few reported studies by Houlton *et al.*, 1985, and Juvet *et al.* 2010 who had reported that the foreign body was located caudal to the heart base in 68.2% of the cases, at the heart base in 18.2% of the cases and in the cervical oesophagus in 13.6% of the cases. They also reported that mild short-term complications included some episodes of vomiting and prolonged inappetence. Severe complications included aspiration pneumonia, haemorrhage and formation of a diverticulum. In this particular case, the decision to go for surgical treatment was taken based on the size of the foreign body and the period of time of clinical signs displayed before presentation to the hospital. Since there was high risk of oesophageal rupture owing to these factors, it was decided to perform oesophagotomy to relieve the obstruction.

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