SURGICAL MANAGEMENT OF ESOPHAGEAL FOREIGN BODY IN A DOG SUFFERING FROM TRIGEMINAL NEURALGIA

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ABSTRACT

A 2 yr old Non-descript dog, was presented with the history of frequent retching, vomiting, excessive salivation and anorexia for the past two days. The dog was emasciated, dehydrated and unable to open its mouth due to trigeminal neuralgia. Palpation of cervical esophageal region revealed a hard mass. Lateral and Ventro-dorsal survey radiograph of neck region revealed the presence of a radio-opaque foreign body in the proximal cervical esophageal region. Esophagotomy was done successfully to remove the foreign body .

Key Words : Dog, foreign body, esophagus, esophagotomy.

Incidence of esophageal foreign body is more common in dogs (88.38%) than cats (11.61%) (Elizabeth, 2006) due to their scavenging feeding habits. The common site of obstruction is at the thoracic inlet, base of the heart or between heart and diaphragm (Ryan and Greene, 1975).

A 2 yr old non-descript dog with the history of frequent retching, vomiting, excessive salivation and anorexia for the past two days was presented to SAC-OP-Surgery unit of Madras Veterinary College Teaching Hospital. On physical examination, the dog was found depressed, dehydrated and unable open its mouth completely due to trigeminal neuralgia, which was diagnosed based on clinical symptoms. A hard mass was palpable on the proximal cervical esophageal region below the larynx. Heart rate, respiratory rate, rectal temperature and mucous membrane colour were normal.

Hematology and serum biochemical profiles were within the normal range with slight elevation in Packed Cell Volume. Lateral and Ventro-Dorsal survey radiograph of the neck region revealed the presence of a radio-opaque foreign body in the proximal esophagus and was identified as bone based on its shape and density in the radiograph (Fig : 1). Manual removal of foreign body was tried with the dog under general anesthesia with propofol @ 4 mg/kg intravenously, but could not be retrieved as the dog was suffering from concomittent trigeminal neuralgia. Hence esophagotomy was resorted to remove the foreign body.

Preoperative antibiotics and analgesics were administered. The dog was premedicated with Diazepam @ 0.2 mg/kg B.W and Butorphanol tartrate @ 0.2 mg/kg B.W intravenously. General anaesthesia was induced with Propofol @ 4 mg/kg B.W intravenously and maintained with

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Isoflurane @ 2.5% in oxygen using Boyles anesthetic apparatus. The dog was placed on dorsal recumbency and the surgical site was prepared following aseptic procedures. Mid ventral skin incision was made from larynx to manubrium and the subcutaneous fascia was dissected and the muscles were separated.

1.Diazepam, Lori, Neon laboratories, Mumbai.

2.Butorphanol tartarate, Butodol-2, Neon laboratories, Mumbai.

3.Propofol, Neorof, Neon laboratories, Mumbai.

4.Isoflurane, Forane, Abbott pharmaceuticals, India.

The obstruction site in the esophagus was identified and stay sutures were placed adjacent to the proposed incision site to prevent trauma to the esophageal edges. A stab incision was made in the esophageal lumen cranial to the foreign body obstruction site and the bone was removed without esophageal trauma (Fig:2). Esophageal incision site was closed with 2 layer of simple continuous suture pattern with PGA 3-0 suture material. Subcutaneous tissue and skin was closed as per standard surgical procedure. For the first 3 days post operatively food was not given orally and fluid therapy was given at 12 hrs interval with Ringers lactate solution I/V along with Cefotaxime@10 mg/kg BW, Pantoprazole @1 mg/kg BW, Ondansetron@ 0.2 mg/kg BW, Tramadol@2 mg/kg followed by blenderized diet for a week and normal diet over the next week.

The most common foreign bodies in dogs are bones and rawhides (Houlton et al, 1985). Esophageal foreign bodies are considered as emergencies and the risk for the development of complications such as ulceration, stricture formation and perforation increases as the foreign body remains stuck in the esophagus for a long time (Rousseau et al, 2007) . Mostly, the dogs will have a history of foreign body ingestion witnessed by their owners, followed by the typical onset of clinical signs (Leib and Sartor, 2008). Trigeminal neuritis/neuropathy is an idiopathic, bilateral, non-suppurative inflammation of the motor branches of cranial nerve-5 and the affected dogs find difficulty in opening and closing the mouth, mild dysphagia, horners syndrome and muscle atrophy are the signs noticed (Mayhew, 2002). The above case recovered uneventfully without any complications post surgery.

1.Cefotaxime, VP-Tax, Vita Pharma, Chennai.

2.Pantoprazole, Ulsid-P, Vita Pharma, Chennai.

3.Ondansetron, Onderon, Race pharmaceuticals, Chennai.

4.Tramadol, Supridol, Neon laboratories, Mumbai.

REFERENCES

Elizabeth, L., Thompson, H.C., Cortes, Y., Gannon, K., Bailey, D. and Freer, S. (2006).

Esophageal foreign bodies in dogs : 34 cases(2001-2005). Journal of Veterinary Emergency and Critical Care, 22(2): 253-261.

Houlton, J.E.F. and Herratage, M.E. (1985) . Radiography of esophageal obstructions. T h e Veterinary Record, 110(7): 159-160.

Leib, M.S. and Sartor, L.L. (2008) . Esophageal foreign body obstruction caused by a dental chew treat in 31 dogs(2000-2006). Journal of the American Veterinary Medical Association, 232(7): 1021-1025.

Mayhew, P.D., Bush, W.W. and Glass, E.N.(2002). Trigeminal neuropathy in dogs: a retrospective study of 29 cases(1991-2000). Journal of American Animal Hospital Association, 38(3): 262-70.

Rousseau, A., Prittie, J., Broussard, J.D., Fox, P.R. and Hoskinson, J. (2007). Incidence and characterization of esophagitis following esophageal foreign body removal in dogs: 60 cases (1999-2003). Journal of Veterinary Emergency and Critical Care, 17: 159-163.

Ryan, W.W. and Greene, R.W. (1975). The conservative management of oesophageal foreign bodies and their complications: a review of 66 cases in dogs and cats. Journal of American Animal Hospital Association, 11(3): 243-249.

Fig 1 : Plain radiograph showing radio-opaque foreign body in the esophagus.

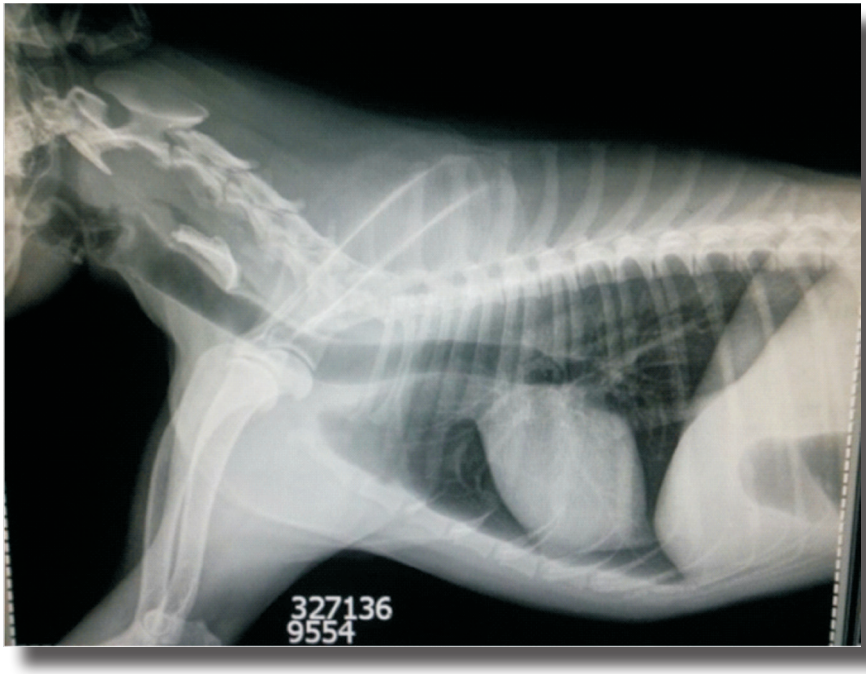

Fig 2 : Surgical removal of foreign body (bone) from the esophagus.