

Clinical Article

**MIDOESOPHAGEAL FOREIGN BODY OBSTRUCTION AND ITS
SURGICAL MANAGEMENT IN A CALF**

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Abstract: An eight month old female calf was presented to the University Veterinary Hospital, Mannuthy, Kerala Veterinary and Animal Sciences University, with symptoms suggestive of oesophageal obstruction. As the obstruction could not be relieved by passing a stomach tube, surgical correction was performed. The obstructing foreign body was found to be a beetroot and the animal had an uneventful recovery

Keywords: mid-oesophageal obstruction, calf, beetroot.

Oesophageal obstruction is a frequently observed surgical emergency in ruminants (Marzok *et al.*,2015). The condition is more common in free ranging cattle and it can be attributed to the indiscriminate feeding habits of ruminants. Choke prevents eructation of gases leading to tympany which makes it an emergency condition requiring immediate surgical intervention. Choke in cattle can be handled by passing stomach tube or surgically relieving foreign body by oesophagotomy. A mid oesophageal obstruction by a beetroot and its successful surgical management is placed on record.

Case history and observations

An eight month old calf was presented to University Veterinary Hospital Mannuthy, KVASU with restlessness, increased salivation and had developed tympany. A hard mass could be palpated at the mid cervical region on the left side which was suggestive of choke. Even though bougieing by passing the stomach tube was tried, it was not successful, and decided to perform surgical retrieval of obstructing mass by oesophagotomy.

Treatment and Discussion

The animal was sedated using xylazine butorphanol ketamine combination@ 0.05, 0.025 and 0.1 mg per kg body weight respectively, by intramuscular injection. The animal was restrained in right lateral recumbency.

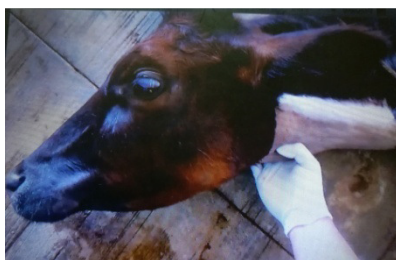


Fig. 1 Surgical site after preparation

Local infiltration anesthesia of the site on the mid left lateral aspect of neck was achieved with 2% lignocaine. A two inch linear incision was put on the left side of the neck over the site of obstruction. The bellies of sternomandibularis and sternomastoideus muscles were separated to expose the oesophagus. A longitudinal incision one inch long incision was made on the wall of oesophagus, carefully incised the mucosa to expose the mass. The retrieved the foreign body was found to be a beetroot (fig. 3).



Fig. 2



fig. 3

foreign body within oesophagus

The oesophagus was closed in two layers, mucosa in simple interrupted pattern and the submucosa and muscularis, the second layer in simple interrupted sutures using polyglactin 910 1/0. The cervical muscles were apposed in simple continuous pattern with polyglactin 910 size 1 and skin with nylon in routine manner. Postoperatively the animal was administered inj. Ceftriaxone @10 mg per kg body weight, inj meloxicam @ 0.2 mg per kg and intravenous fluids for four more days. Liquid feed was started by third day and, small amount of solid food by seventh day. Sutures were removed on 10 th postoperative day and the animal had an uneventful recovery.



Clinical signs of choke reported in ruminants are ptyalism, tympany, anorexia and intermittent regurgitation of the ingested feed (Marzok *et al.*, 2015 and Suresh *et al.*, 2010). Salivation and tympany was observed in the present case also. Tympany should be relieved through trocharisation of rumen. The condition can be diagnosed by passing probang or stomach tube, endoscopy and plain or contrast radiography (Gowri *et al.*, 2016). Although oesophageal obstruction can occur at pharyngeal entrance, cervical oesophagus, base of heart and at the level of cardia, obstruction at the cervical region was observed more frequently. Conservative treatment methods include attempts to manipulate foreign body externally to remove it through oral cavity, moving the obstructing mass down into the rumen by passing stomach tube or an inflated endotracheal tube, and endoscopic retrieval. Risk of oesophageal perforation is likely to occur while doing all these procedures (Marzok *et al.*, 2015). Sedation and infiltration of local anaesthetic at the site diminishes oesophageal spasm and thus facilitates external massaging and retrieval of foreign body (Wilmot *et al.*, 1989). Suresh *et al.*, 2010 has reported the closure of oesophagus in two layers, mucosa sutured in continuous and submucosa and muscularis included in Cushings suture pattern. A two layer closure with mucosa and submucosa in Lemberts and muscularis in simple continuous has also been reported (Marzok *et al.*, 2015). Food is to be withheld for 48 hours after surgery. Fluid therapy including 5% dextrose and sodium bicarbonate must be provided to compensate for the continuous loss of saliva preoperatively. Post operative complications reported are incisional dehiscence and fistula formation (Wilmot *et al.*, 1989).

Summary

A case of surgical management of choke in calf is documented.

References

- [1] Gowri, B., Kavitha, S., Chandrasekharan, D., Enbavelan, P.A. and Thirunavukkarasu, P.S. 2016. Endoscopic Removal of Oesophageal Foreign Body (polythenene bag) in a Calf-A Case Report. *Indian .Vet. J.* **93**: 60 - 61

- [2] Marzok, M., Moustafa, A., El- Khodery, S., Muller, K. 2015. Esophageal Obstruction in Water Buffalo (*Bubalus bubalis*)- A Retrospective Study of 44 cases (2006-2013). *Turk. J. Vet. Anim. Sci.* **39**:233-240
- [3] Suresh Kumar, R.V., Dhanalakshmi, N., Veena, P., Shanker, P., and Yasotha, P. 2010. Surgical Management of Cervical Oesophageal Obstruction in A Buffalo: A Case Report. *Buffalo Bulletin.* **29**: 71-72.
- [4] Viswanatha, B., Ranganath, L., Mahesh, V., Ramesh Rathod. 2012. Choke in a Cow- A Case Report. *Vet. World.* **5**:40-41
- [5] Wilmot, L., Saint, J. G., Hoffsis, G.S. 1989. Treatment of an oesophageal laceration in a calf. *Can. Vet. J.* **30**: 175-177