

# Successful Surgical Retrieval of Oesophageal Foreign Body in A Jersey Cow- A Review of Two Cases

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## Abstract

*A 7year old and Jersey cow in its 5th and 4th calving respectively was presented with the signs of profuse salivation, acute ruminal tympany, and dyspnoea. Palpation of the cervical part of oesophagus revealed a pliable mass. Based on the history, clinical signs, clinical findings and inability to pass the stomach tube beyond the palpable mass, the case was diagnosed as intraluminal obstruction of the cervical oesophagus. Cervical oesophagotomy revealed that the obstruction was caused by the lodging of carrot and radish into the oesophagus.*

**Keywords:** Carrot, Cervical Oesophagotomy Jersey cow, Oesophageal choke, Radish

## Introduction

Choke or intraluminal obstruction of the oesophagus may occur due to vegetables, fruits, phytobezoars and various foreign bodies (Tyagi and Singh, 1993 and Arup Das, 2019). It is an acute condition, that obstructs the oesophagus either completely or partially which requires emergency treatment in cattle. The choke prohibits the eructation of ruminal gases and develops into severe free gas bloat and it is life-threatening if not treated in time. The common sites of obstruction in bovines include the pharynx, cervical esophagus, thoracic inlet, base of the heart, and cardia (Tyagi and Singh 1993). The present case report describes the surgical retrieval of oesophageal obstruction caused by carrot and radish.

## Case History and Observations

A 6- and 7-year-old, Jersey cow weighing 342 kgs and 380 kgs respectively was presented to the outpatient unit of Large Animal Clinic Dep. of Veterinary Clinical Complex, Veterinary College and Research Institute, Namakkal with a history of salivation and extended neck since morning. Clinical examination revealed profuse salivation with distended left flank, swollen neck, dyspnea, and tongue protrusion. Palpation of the neck region revealed a pliable mass at the cervical part of the oesophagus. The stomach tube was unable to pass beyond the palpable mass. Based on the history, clinical signs, and clinical findings the case was diagnosed as oesophageal choke, and the animal was prepared for cervical oesophagotomy.

## Treatment and Discussion

As an emergency first aid, rumen decompression was performed using trocar and cannula. Then the animal was sedated with Inj. Xylazine hydrochloride at 0.01mg/kg IM and positioned in right lateral recumbency. The animal was prepared for the aseptic surgery as per the standard procedure. The surgical site was infiltrated with 2% lignocaine. A longitudinal skin incision was made on the cervical part over the palpable mass. After careful dissection, oesophagus was isolated and oesophagotomy was performed on a healthy portion of the oesophagus. Oesophagotomy revealed the obstructed mass was one carrot and two radishes (Fig.1) and part of the spiky outer skin of jack fruit (Fig.2) which are snugly lodged in the lumen of oesophagus. After removal of the obstructed vegetables, the inner mucosa and submucosa were closed with an interrupted suture pattern using No.0 Vicryl, and the muscle layer closed with a simple interrupted suture pattern using no.0 vicryl. Skin closure was performed by cross mattress using No.2 braided silk. Postoperatively, food and water were withheld for 48 hours and the animal was maintained with IV fluid therapy. The cow was treated with Inj. Streptopenicillin 5g/day for 7days, Inj Meloxicam @ 0.5 mg/kg b.wt for 3 days and Inj. Chlorpheniramine maleate @ 0.5 mg/kg b.wt for 7 days.



Fig.1. Retrieved oesophageal foreign body- carrot and Radish



Fig.2 Retrieved oesophageal foreign body- Jack fruit

Foreign body obstruction or choking, a common oesophageal disorder in cattle results from incomplete mastication and rapid indigestion (Fubini and Ducharme, 2017). The incidence of cervical oesophageal obstruction is more compared to the thoracic oesophageal obstruction (Hofmeyr, 1974). In ruminants, cervical oesophageal obstruction is more common compared to the thoracic oesophageal obstruction which requires immediate surgical correction (Ramesh *et al.*, 2018). The oesophageal obstruction could be relieved easily if the obstruction was in the proximal cervical region by gentle pushing into the oral cavity under sedation using a mouth gauge or pushing of foreign

body in to the rumen after lubrication with liquid paraffin. Manual retrieval of beetroot, mango, sapota reported in cattle. In the present case attempts were failed to relive the obstruction manually and an emergency oesophagotomy was performed. In general, cattle produce a large quantity of saliva, which makes smooth-skinned vegetables like potatoes, radish, and carrots. etc difficult to masticate. So it can be slipped into the pharynx and oesophagus (Fubini and Ducharme, 2017). It might be the reason for the obstruction in the present case. The reported causes of oesophageal obstruction in buffaloes include rexin (Shivaprakash *et al.* 1998), leather (Salunke *et al.* 2003), coconut (Madhava Rao *et al.*,2009), cloth (Kamble *et al.*2010), palm kernel (Hari Krishna *et al.* 2011) and unripe mango (Mandagiri *et al.* 2017).

The animal was fasted for 48 hrs. and maintained with intravenous fluid therapy to avoid the contamination and damage to the surgical site. From third postoperative day, the animal was allowed to take a small quantity of chopped green fodder. Mild swelling was noticed at the surgical site initially after the restoration of feeding and regressed afterward. The animal started normal feed and water intake from the 5<sup>th</sup> postoperative day onwards. The animal was recovered uneventfully without any postoperative complications like oesophageal fistula, stricture, and diverticulum.

## Contribution of Authors

The authors contributed equally.

## Conflict of Interests

There is no conflict of interest.

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