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Oesophageal choke and its management in a crossbred dairy cow

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Abstract
A 2 time calved crossbred Jersey cow was presented with the signs of salivation, acute ruminal tympany and dyspnoea. The rectal temperature, conjunctival mucous membrane and the heart rate were within the normal range. Palpation of cervical part of oesophagus revealed a pliable mass. Based on the history, clinical signs, clinical findings and inability to pass stomach tube beyond the palpable mass, the case was diagnosed as oesophageal choke. The choke was relieved by passing the hand in to oral cavity till the site of choke with the help of mouth gag and a piece of tapioca was removed by traction. Complete recovery was demonstrated and appreciated immediately after the removal of the choked tapioca.

Keywords: Oesophageal choke, tapioca, management

Introduction
Choke in oesophagus 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 in to severe free gas bloat and it is life threatening if not treated in time. Intra-luminal oesophageal obstruction may occur due to vegetables, phytobezoars (Tyagi and Singh, 1999) [7], Trichobezoars (Radostits *et al.*, 2000) [3], pieces of leather or rubber (Salunke *et al*., 2003) [4], palm kernels (Hari Krishna, 2011) [1]. Hofmeyr (1974) reported that 80% of oesophageal obstruction occurs in the cervical region in cattle. Oesophageal obstruction occurs commonly at the thoracic inlet, but may also occur in the cervical esophagus or over the base of the heart. The present case report describes the management of complete cervical choke caused by a piece of tapioca and its manual removal using mouth gag in a crossbred Jersey cow.

Case History and Observations
A 3 time calved crossbred HF cow was presented to the out-patient unit of Large Animal Clinic section of Veterinary Clinical Complex, Veterinary College and Research Institute, Udumalpet with history of salivation, acute ruminal tympany, dyspnea and difficulty in walking. General clinical examination revealed dyspnea, ruminal tympany and excessive salivation.
The rectal temperature, conjunctival mucous membrane and the heart rate were within the normal range. Bulged left paralumbar fossa and a tympanic sound on auscultation revealed the presence of free gas tympany. swelling was observed on cervical part of oesophagus. Palpation of cervical part of oesophagus revealed a pliable mass. Stomach tube was passed and unable to pass beyond the upper one third of cervical oesophagus due an obstruction by mass or foreign body. No abnormalities detected on oral cavity examination. Based on the history, clinical signs, clinical findings and inability to pass stomach tube beyond the palpable mass, the case was diagnosed as oesophageal choke and a suitable therapeutic intervention was prepared.

Treatment and Discussion
As an emergency first aid, ruminocentesis was performed using a sterile 16 G needle and the acute ruminal tympany was relieved to certain extent after restraining the cow in a trevis. The tapioca piece lodged at the cervical part of oesophagus was squeezed upward towards pharynx and was removed by hand passing through oral cavity after application of Gunthers mouth gag.

The stomach tube was passed freely down the esophagus into the rumen to ensure the free passage. The cow was treated with Inj. Streptopenicillin 5 gm, Inj Meloxicam @ 0.5 mg/kg B.WT and Inj. Chlorpheniramine maleate @ 0.5 mg/kg b.wt administered intramuscularly for 2 days. Complete recovery was demonstrated and appreciated immediately after the removal of the choked tapioca.

Complete oesophageal choke was confirmed in the present report. 80% of oesophageal obstruction occurs in the cervical region in cattle (Holfmeyr, 1974) [4]. Oesophageal obstruction could be relieved easily if the obstruction is in the cervical region (Veena *et al*., 2000) [8]. Repeated attempt to relieve the choke by pushing them into the rumen with a stomach tube or probang with vigorous efforts may lead to dislodgement of the obstruction and usually result in rupture of the esophagus which may cause death of the animal. But in this case, based on the nature of the obstructive mass, it was squeezed towards oropharynx and retrieved manually using mouth gag. Ruminants experiencing an incomplete esophageal obstruction show signs of repeated ruminal tympany which resolves temporarily upon passage of a stomach tube (Smith, 2008) [5]. Stomach tube was found useful to locate of the choke as well as check the patency of esophagus after the removal of the obstruction. If conservative treatment failed, the oesophagotomy is indicated as reported by Sreenu and Sureshkumar (2001) [6].

Conclusions

Choke in the esophagus is an acute, life-threatening condition in cattle that requires emergency treatment due to its potential to cause severe free gas bloat. This case report discusses a crossbred Jersey cow with complete cervical choke caused by a piece of tapioca, leading to symptoms such as salivation, dyspnea, and ruminal tympany. Manual removal of the obstruction through the oral cavity using a mouth gag proved effective. Prompt treatment, including ruminocentesis and appropriate medication, ensured the cow's recovery. Successful management of esophageal choke often depends on the obstruction's location and timely intervention to prevent severe complications.

References

1. Hari Krishna NVV, Sreenu M, Bose VSC. An unusual case of oesophageal obstruction in a female buffalo. Buffalo Bulletin. 2011;30(1):4-5.
2. Holfmeyr CFB. Obstruction of oesophagus by tarpaulin cloth in a buffalo calf. Indian Vet. J. 1974;78:243-244.
3. Radostits OM, Gay CC, Blood DC. Oesophageal obstruction. In: Radostits OM, Gay CC, Hinchcliff KW, Constable PD. Veterinary Medicine: A Textbook of the Diseases of Cattle, Sheep, Pigs, Goats and Horses. London, UK: W.B. Saunders Ltd. 2000;9:1526-27.
4. Salunke VM, Ali MS, Bhokre AP, Panchbhai VS. Oesophagotomy in standing position. An easy approach to successful treatment of oesophageal obstruction in buffalo. A report of 18 cases. Intas Polivet. 2003;4:366-367.
5. Smith BP, Editor. Large Animal Internal Medicine. 4th ed. St. Louis, Missouri: Mosby; c2008, p. 804-805.
6. Sreenu M, Sureshkumar RV. Obstruction of oesophagus by tarpaulin cloth in a buffalo calf. Indian Vet. J 2001;78:243-244.
7. Tyagi RPS, Singh J. Ruminant Surgery. 1st Edn. CBS Publishers and Distributers, New Delhi, India; c1999, p. 192.
8. Veena P, Ravikumar A, Ramakrishna O. Oesophageal obstruction by mango in a heifer. Indian Vet. J. 2000;77:794.

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