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Surgical management of choke through oesophagotomy in a buffalo: A case report

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Oesophageal disorders are relatively uncommon in large animals. Oesophageal obstruction is the most frequently encountered clinical presentation in bovine and it may be intraluminal or extra luminal (Haven, 1990). Intraluminal obstruction or "choke" is the most common abnormality that usually occurs when foreign objects, large feedstuff, medicated boluses, trichobezoars, or oesophageal granuloma lodge in the lumen of the oesophagus. Oesophageal obstructions in bovine commonly occur at the pharynx, the cranial aspect of the cervical oesophagus, the thoracic inlet, or the base of the heart (Choudhary *et al.,* 2010). Diagnosis of such problem depends on the history of eating particular foodstuff and clinical signs as bloat, tenesmus, retching, and salivation. External palpation may be used to confirm those located in the cervical oesophagus. Various conservative treatments have been described for the management of oesophageal foreign bodies in bovines. Treatments comprise percutaneous external oesophageal massage, passage of a stomach tube, Thygesen's probang or an inflated endotracheal tube, and endoscopic removal of the foreign bodies (Mahesh *et al.,* 2010). In spite of the good results obtained by these methods, surgical intervention is still necessary if conservative treatment fails and the animal is economically valuable.

Case History and Clinical Observations

A 6 years old pluriparous buffalo was presented with the history of anorexia, depression and dysphagia along with the hard swelling on the mid cervical region for the treatment. Earlier it was symptomatically treated by the local paravet. The clinical examination revealed a hard immovable mass on the mid-cervical oesophagus having fibrous consistency. The rectal temperature was slightly high (103.1ºF), while respiratory rate and pulse rates were normal. There was absence of rumination with partial bloat and dehydration with shrunken eyes. Radiographic examination of neck revealed presence of foreign body in the oesophagus (Photo-I). Manual efforts to dislodge the obstruction by gentle massage over the site and probang failed, hence surgical intervention was decided.

Treatment and Discussion

Buffalo was already anorectic for the last two days, hence oesophagotomy was planned instantly. General anaesthesia was achieved by the Xylazine hydrochloride @ 0.01 mg/kg b.wt., and local analgesia was achieved by the infiltration of the 2% lignocaine keeping buffalo in a right lateral recumbency. The site was prepared for aseptic surgery and 8 cm long longitudinal incision was made over the obstruction site to expose the oesophagus. Then, a 4 cm incision was made over the dorsal aspect of the oesophagus to expose the oesophageal lumen and foreign body was removed (a piece of plastic material, Photo-II). The mucosa was sutured by the simple interrupted

suture and sub-mucosa by the simple continuous mattress using Vicyl following washing of oesophageal lumen with the metronidazole solution. Muscles and skin were sutured by routine manner. A tincture benzoin gauge was applied over the surgical site including zinc oxide powder. Post-operatively buffalo was administered with the benzathine penicillin 48,00,000 IU, IM (Benpen-LA 48, Oxen lab) on alternate day, 10 ml of Meloxicam (Melonex, 5 mg/ml, Intas Pharma) IM and maintained on the intravenous fluid therapy (0.9% NS and 5% DNS) for 5 days. After that, a soft diet was advised and then roughages were introduced gradually from day 8th post-operatively. Antiseptic dressing of the suture site was done by povidone iodine solution. Sutures were removed on 10th post-operative day. Buffalo recovered uneventfully (Photo-III).

Photo I: Radiography of neck showing foreign body

Photo II: Plastic material with feed stuff removed

Photo III: Post-operative incision

Oesophageal obstruction in buffalo is a clinical emergency that needs prompt intervention. Acute and complete oesophageal obstruction is an emergency because it prohibits eructation of ruminal gases, and free-gas bloat develops. Intraluminal obstruction with feed particles at the cervical region is more likely to occur in buffalo (Han Krishna *et al.,* 2011). Radiography may be a useful tool to identify atypical cases of oesophageal obstruction. Proper application of manipulative or surgical interventions in due time, and post-operative follow-up are the fundamental factors for successful outcomes (Meagher and Mayhew, 1978). The prognosis is good for animals suffering from oesophageal obstruction if they are treated within 24 to 36 h from the onset of clinical signs, but it worsens for those animals that are not identified within 36 to 48 h. This is attributable to secondary ruminal tympany as well as to inflammation and necrosis of the oesophageal mucosa (Ravikumar *et al.,* 2003). In present case also, ruminal tympany and superficial necrosis of the mucosa developed as the case had suffered for more than 24 h, however surgical management was successful in the present case.

Conflict of Interest: All authors declare no conflict of interest.

References :

Choudary, S.R., Patel, J.B. and Suthar, D.N. (2010). Surgical management of cervico-oesophageal obstruction in a Mehsana buffaloe. *Intas Polivet*, **11**: 161-164.

Han Krishna, N.V.V., Sreenu, M. and Bose, V.S.C. (2011). An unusual case of oesophageal obstruction in a female buffalo. *Buffalo Bulletin*, **30**: 4-5.

Haven, M.L. (1990). Bovine oesophageal surgery. *Vet. Clin. North Am. Food Anim. Pract.,* **6**: 359-369.

Mahesh, V., Manjunatha, D.R. and Ranganath, L. (2010). Surgical management of cervical oesophageal obstruction in a crossbred cow. *Intas Polivet*, **11**: 165-166.

Meagher, D.M and Mayhew, I.G. (1978). The surgical treatment of upper oesophageal obstruction in the bovine. *Can. Vet. J.,* **19**: 128-132.

Ravikumar, S.B., Arunkumar. P. and Madhusudan, A. (2003). Oesophageal obstruction in a buffalo - a case report. *Intas Polivet*, **4**: 48-49.

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