

CERVICAL OESOPHAGEAL OBSTRUCTION IN A SHE-BUFFALO

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ABSTRACT

An eight year old pleuriparous she buffalo was presented to the Department of Veterinary Surgery and Radiology, Gannavaram with a history of salivation, dyspnoea and acute ruminal tympany. Clinical examination revealed complete oesophageal obstruction which was confirmed by passing a probang. The obstruction, produced by a palm kernel, was relieved by oesophagotomy.

Keywords: *Bubalus bubalis*, buffaloes, oesophagus, choke, foreign body

Complete oesophageal obstruction is an emergency as it interferes with eructation of gases resulting in acute bloat and respiratory distress. The common sites of oesophageal obstruction were behind the pharynx, distal third of oesophagus, thoracic inlet and base of the heart (Tyagi and Singh, 1999; Marzok *et al.*, 2015) The primary indication for esophageal surgery in large animals is to relieve oesophageal obstruction (choke) which has not responded to conservative treatment (Meagher and Mayhew, 1978). The present study reports about an uncommon case of complete cranial cervical choke caused by palm kernel in a she buffalo and its surgical management.

INTRODUCTION

Only few diseases have been documented that cause oesophageal disorders in the bovine, the most common being foreign body obstruction. Oesophageal obstruction by foreign body is a common disorder in cattle and results from incomplete mastication and rapid ingestion (Fubini and Pease, 2004). The common foreign bodies that cause oesophageal obstruction include apple, mangoes, palm kernel, turnip, potatoes, coconut, corn stalks, large sized lemon etc., Oesophageal obstruction has been occasionally reported in buffaloes which may be complete or partial.

HISTORY AND CLINICAL SIGNS

An eight year old pleuriparous she buffalo with a history of not taking feed and water, extended neck, salivation, dyspnoea and acute ruminal tympany was presented to the Department of Veterinary Surgery and Radiology, Gannavaram. On clinical examination, swelling was noticed in the mid cervical region and palpation revealed a round hard mass and tentatively diagnosed as complete oesophageal obstruction. A probang was passed to confirm the obstruction. The rectal temperature, heart rate was normal and

dyspnoea was noticed. Attempt made to relieve the choke manually, by pushing the foreign body with a probang, was futile. Hence, the animal was subjected to oesophagotomy.

RESULTS AND DISCUSSION

Trocarisation was done immediately before attempting for surgery, to relieve bloat. The animal was sedated with inj. Xylazine 0.05 mg/Kg b. wt. Local analgesia was achieved by infiltration using 2% lignocaine hydrochloride. A skin incision was made below the jugular furrow over the obstruction. The esophagus was exposed after blunt dissection and an incision was made over the obstruction (Figure 1). The obstructing foreign body, a palm kernel, was removed (Figure 2). The oesophageal mucous membrane was closed by continuous suture using 3/0 chromic catgut with swaged on needle. The sub mucosa and muscular layers were closed using 2/0 chromic catgut with swaged on needle in continuous pattern, while closing the last part of the oesophagus adjacent fascia was included to cover the incision, to promote rapid healing. The sub cutis was closed by subcuticular suture using No. 1 chromic catgut. The skin incision was closed by horizontal mattress sutures using No. 2 black braided silk (Figure 3). Postoperatively Inj. streptopenicillin 5.0 g i/m. For 7 days, Inj. meloxicam 15 ml i/m., Inj. DNS 5L i/v for 5 days were administered. The animal was given gruel on 6th day and chopped fodder from 8th day onwards. Skin sutures were removed on 10th day.

Cattle and buffaloes ingest foreign bodies due to indiscriminate feeding habit or nutritional deficiency (Tyagi and Jit Singh, 1999; Shivprakash, 2003). The symptoms noticed in the

present case were extended neck, salivation, bloat, dyspnoea and swelling at ventral neck region. Similar symptoms were observed by Tyagi and Jit Singh (1999); Yadav *et al.* (2008). The treatment for intraluminal oesophageal obstruction can be conservative or surgical. Wilmot *et al.* (1989) reported that administration of a regional local anesthetic works by diminishing oesophageal spasm and thus facilitates external esophageal massage and removal of foreign body. Conservative treatment using a probang to push the foreign body into the rumen was not successful in the present case due to rough fibrous surface of the palm kernel which firmly attached to the oesophageal mucosa. Various kinds of foreign bodies like mango, tarpalin cloth, palm kernel, leather piece, cloth and rexin etc., (Sreenu and Sureshkumar, 2001; Shivprakash, 2003; Yadav *et al.*, 2008; Hari Krishna *et al.*, 2010; Vishwanatha *et al.*, 2012) were reported. Oesophageal obstruction can occur at different sites *viz.*, post-pharyngeal region, cervical region (Vishwanatha *et al.*, 2012), thoracic region (Yadav *et al.*, 2008) and cardia (Hari Krishna *et al.*, 2011). Hofmeyr (1974) reported that 80% of oesophageal obstruction occurs in the cervical region in cattle. Cervical oesophageal obstruction can be easily managed by oesophagotomy while the obstruction at cardia can be relieved through rumenotomy (Hari Krishna *et al.*, 2011). In the present report, choke caused by palm kernel was treated successfully by surgical approach. The prognosis of oesophageal obstruction is not always favourable. Oesophageal surgery was associated with potential complications such as suture dehiscence, perforation or fistula and stenosis due to scar (Ruben, 1997; Hari Krishna *et al.*, 2011). No complications were reported in the present case and the animal recovered uneventfully.

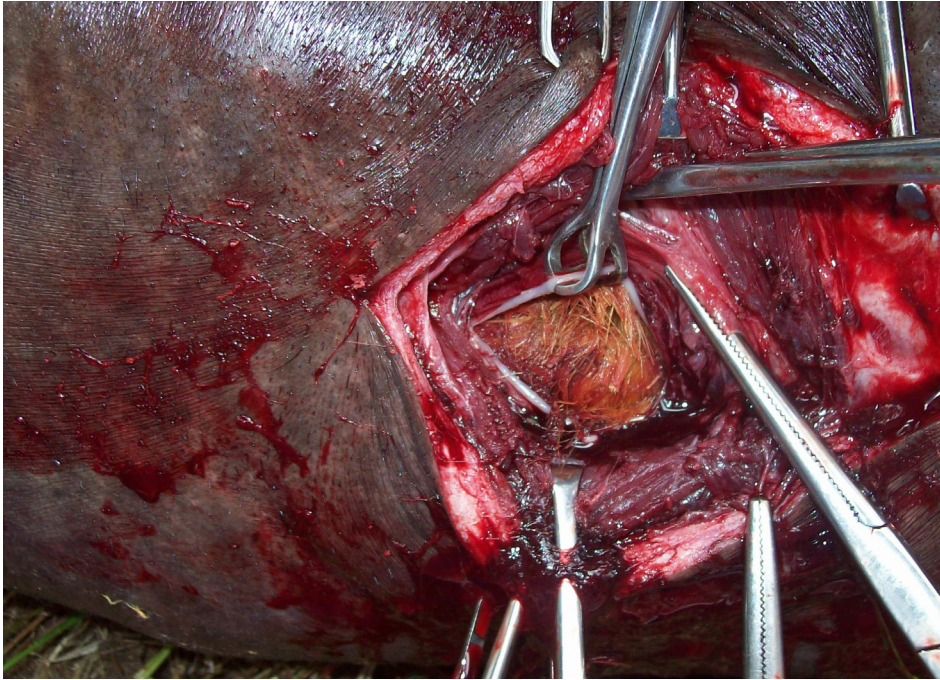


Figure 1. Incision on the oesophagus exposing the foreign body.

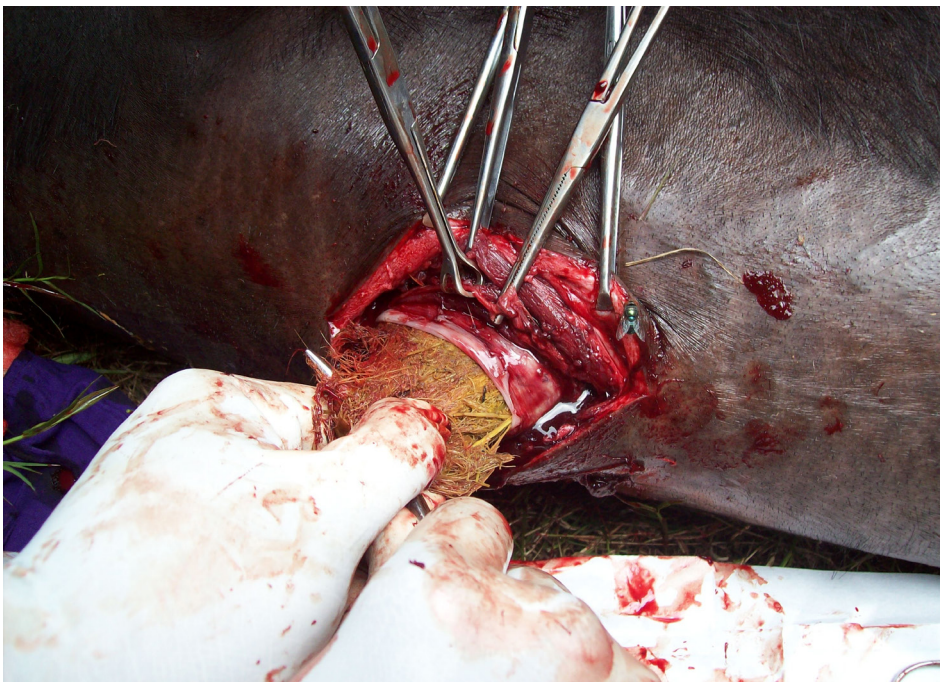


Figure 2. Retrieval of foreign body - Palm Kernel.



Figure 3. She buffalo on 3rd Post-operative day.

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