

SURGICO-THERAPEUTIC MANAGEMENT OF OESOPHAGEAL OBSTRUCTION IN PREGNANT MARATHWADI BUFFALO - AN UNUSUAL CASE

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ABSTRACT

A seven years old, ten months pregnant she-buffalo weighing 401 kg was presented to TVCC, COVAS, Udgir with a history of dysphagia, repeated regurgitation and swelling at ventral cervical region since the day before the animal was admitted to the clinic. The animal was suspected for oesophageal obstruction. Endoscopy done by naso-gastric route and X Ray showed oesophageal obstruction with a foreign body situated 100 cm distal from the nasal opening. The animal was cast in right lateral recumbency. The site of incision was shaved, cleaned and scrubbed using liq. 5% providine iodine and surgical spirit. The animal was sedated using Xylazine*. Linear infiltration was done using 2% lignocaine hydrochloride. A linear incision was taken at the surgical site. The overlying muscles were dissected and the esophagus was exposed. An oesophageal incision of sufficient length was taken and an impacted leather mass was removed. The oesophageal mucosa was closed with simple interrupted suture. Submucosa and muscularis part of esophagus were closed with simple continues manner. The muscles and skin were sutured with simple interrupted sutures. The animal was maintained only on fluid therapy for first 3 days. The day after surgery,

the animal was seen lying prostrate with lateral deviation of neck and showing slight vaginal prolapse. The blood sample was analyzed for serum Ca level which revealed a level of 3.9 mg% indicating severe hypocalcaemia. Calcium therapy was initiated. The animal assumed a standing posture. A day later, the animal delivered a normal female fetus. Three days later serum Ca level was re-estimated to be 8.5 mg%. The animal resumed normal feeding and rumination after which the animal was given discharge. Sutures were removed after 15 days post operatively. Female buffalo calf and mother buffalo are healthy.

Keywords: *Bubalus bubalis*, buffalo, hypocalcaemia, oesophagotomy, prepartum prolapsed, parturition, endoscopy

INTRODUCTION

Intraluminal esophageal obstruction sometimes called as choke is a disaster state in case of buffalo. It hampers normal eructation mechanism in the animal which may lead to severe bloat in the animals. Rarely extra luminal obstruction reported in buffalo. (Raddostiis *et al.*, 2000). When conservative treatment fails to relieve

obstruction, surgical removal of obstruction is lone option to preserve precious animal (Meagher *et al.*, 1978; Stick *et al.*, 1982; Marzok *et al.*, 2015). The primary aim of the procedure is to remove the obstruction in the esophageal lumen. Early diagnosis, proper surgical intervention and post operative follow up are key factors for successful outcome of the disease. The occurrence of parturient hypocalcaemia is rare in buffalo as well as cattle.

CASE HISTORY AND CLINICAL EXAMINATION

A seven years old, ten months pregnant Marathwadi she-buffalo weighing 401 kg was presented to TVCC with the history of dysphagia and regurgitation since two days. The swelling at mid cervical region was evident. Palpation revealed non moving mass in lumen. CBC values revealed normal hemogram with mild neutrophilia. Respiration and heart rate were normal. Ruminal tympany in left paralumbar fossa was seen. Endoscopic examination by nasogastric route reveals obstruction at 100 cm from nostril opening. The foreign body was irregular in size adhered to mucosa of the esophagus. Survey radiogram showed obstruction of size 14 cm length and 7 cm diameter.

Anesthesia

The animal was not cooperative so the decision was taken to operate animal in right lateral recumbency with sedation of xylazine 0.01 mg/kg body weight intravenously. The animal was casted in right lateral recumbency. The site of surgery was prepared by shaving and scrubbing with liq. 5% providone iodine and clinical spirit. Local

infiltration with inj. 2% lignocaine was done.

Surgical procedure

A linear 15 cm long incision was taken at the surgical site. The overlying muscles were dissected and the esophagus was exposed. An incision of sufficient length was taken on the wall of oesophagus and esophageal mucosa was exposed. The oesophageal surrounding area was draped to avoid contamination due to saliva and ruminal content. Impacted leather mass was of size 14 cm length removed in pieces as it was firmly attached to esophageal mucosa and unable to pull the whole foreign body. It was an uneven firm tarpaulin cloth. After removal of foreign body, gas was eructed. The oesophageal mucosa was closed with simple interrupted suture. Submucosa and muscularis part of esophagus were closed with simple continuous manner by chromic catgut no 0. Separated muscles were closed with simple interrupted suture with chromic catgut no 0. Skin sutured with nylon by horizontal mattress suture (Figure 1 and 2).

Post operative

Animal was maintained on fluid therapy for 3 days post operatively. Tympany was not observed post operatively. An antibiotic enrofloxacin and anti inflammatory inj. meloxicam were given to buffalo. The day after surgery, the animal was seen lying prostrate with lateral deviation of the neck and showing slight vaginal prolapse. The blood sample was analyzed for serum calcium which was found to be 3.9 mg% indicating severe hypocalcemia. Inj Calcium borogluconate 450 ml was given along with fluid therapy. The animal assumed a standing posture after completion of calcium therapy. On third post operative day animal delivered female buffalo calf normally. Gradual feeding was started after third post operative day. On fourth day serum



Figure 1. Radiograph of cervical oesophagus with foreign body.



Figure 2. Piece of foreign body.



Figure 3. Slight vaginal prolapse.



Figure 4. Lateral deviation of neck.

calcium estimation revealed serum calcium level of 8.5 mg%. The animal resumed normal feeding and rumination after which the animal was given discharge. Sutures were removed after 15 days post operatively. Both female buffalo calf and mother buffalo are healthy till date (Figure 3 and 4).

DISCUSSION

Sreenu and Sureshkumar (2001) successfully managed the esophageal obstruction in buffalo due to tarpaulin cloth. Mohmmad and Zhargham khan (1998) described pre parturient hypocalcemia in buffaloes which might be due to unavailability of sufficient nutrient in the last trimester of buffalo. In current case due to stress, anorexia as well due to the surgical condition which might lead to hypocalcaemia. Xylazine also acts on uterus leading to increasing uterine contraction, decrease uterine blood flow and induction of parturition in buffalo (Esa, 2007) and goats (Sakamoto *et al.*, 1996).

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