

SURGICAL MANAGEMENT OF COMPLETE ESOPHAGEAL OBSTRUCTION IN GRADED MURRAH BUFFALO (*Bubalus bubalis*) - A CASE REPORT

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ABSTRACT

A seven-year-old, advance pregnant graded Murrah buffalo was presented with sudden onset of profuse salivation, anorexia, severe tympany and generalized discomfort. Palpation revealed enlarged cervical esophageal mass with pain and gagging reflex. Plain lateral radiography of neck showed presence obstructed mass in cervical esophageal lumen. The obstructed mass was removed via esophagotomy under deep sedation and local infiltration anaesthesia with uneventful recovery.

Keywords: *Bubalus Bubalis*, buffaloes, gagging, esophagotomy, sophageal obstruction, salivation

INTRODUCTION

Ingestion of various foreign bodies were common in cattle and buffalo leads esophageal obstruction particularly cervical part of obstruction compared to thoracic and it depends upon the type of foreign bodies (Tyagi and JitSingh, 2004). Complete obstruction was more frequent than partial obstruction. Intraluminal obstruction was

more prevalent than extra luminal in buffalo and cervical portion was more frequent than those at pharyngeal region and cardia as described by Marzok, *et al* (2020). The present study represents the complete esophageal obstruction in graded Murrah buffalo and its surgical retrieval via esophagotomy.

CASE HISTORY AND OBSERVATIONS

A seven-year-old, advance pregnant graded Murrah buffalo was presented to teaching veterinary hospital with history of sudden onset of anorexia, tympany, profuse salivation, and extended neck with swallowing reflexes. Further anamnesis revealed, animal has a habit of chewing of rope and inanimate objects during grazing. Clinical examination showed normal physiological parameters except absence of ruminal motility and mild respiratory distress might be due to intra abdominal pressure on diaphragm.

Physical examination of cervical neck revealed presence of palpable and non-movable esophageal mass with milder pain. Lateral radiography of neck showed presence of radio-opaque obstructed foreign body (Figure 1) into

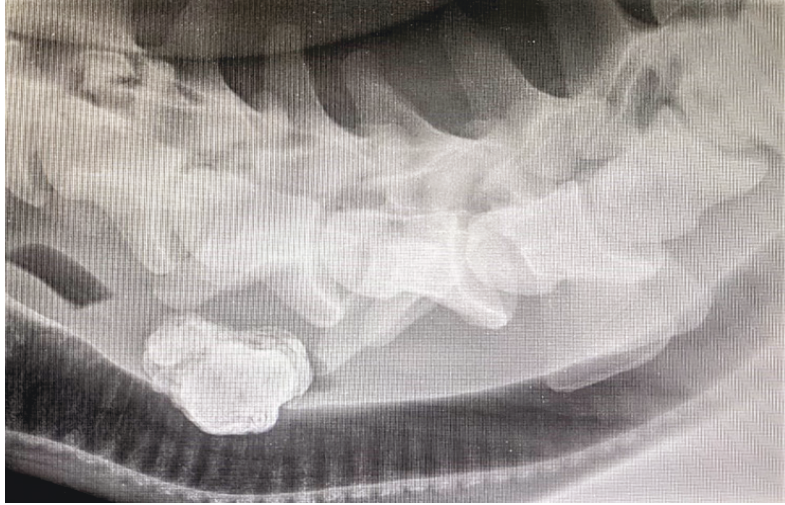


Figure 1. Radiograph showing lateral view of neck indicating radiopaque obstructed foreign body in cervical part of esophagus.

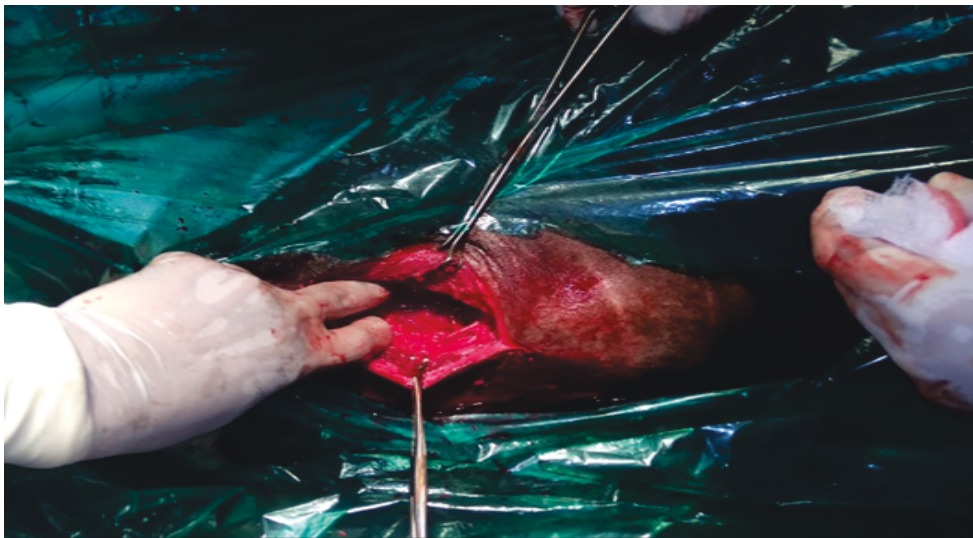


Figure 2. Surgical incision showing approach to esophagus via separating sterno-hyodeus muscle and trachea.

cervical part of lumen pressing the ventral wall of trachea causing respiratory distress. Attempts was made to push foreign objects into rumen via stomach tube but failed to dislodge the obstructed material due to its orientation in esophageal lumen.

TREATMENT AND DISCUSSION

After thorough examination, the buffalo was restrained on right recumbency with the help of Inj. xylazine 0.01 mg/kg, intravenously and left sided jugular furrow was prepared aseptically by clipping the hair and scrubbing with betadine scrub. A longitudinal incision was taken over the bulged portion of neck and esophagus was approached by separating sternohyoideous muscles and trachea (Figure 2). After locating the esophagus, the incision was made directly on the obstructed part of esophagus and foreign body was fixed between two forcep (Figure 3) and it was found that, nylon belt ball tightly lodged into esophageal lumen and retrieved gently (Figure 4) by packing surgical wound with sterile drape to avoid contamination.

The incision was cleaned thoroughly with normal saline and esophageal incision was closed in two layers i.e., simple interrupted followed by continuous pattern by using 3 to 0 chromic catgut material. The muscular layer and surrounding fascia were closed by simple interrupted suture by using chromic catgut No-1 and skin was sutured with simple interrupted pattern with nylon. Postoperatively, animal received Inj. Dicrysticine-5 gm and inj. Meloxicam 10ml intramuscularly for 5 days and skin suture was removed on 7th postoperative days.

Esophageal obstruction is common in large and small ruminants mainly because of their indiscriminate feeding habits. Obstruction due to

mango turnip, rope material, plastic, feeding tube, Phytobezors and intraluminal masses (Gomez *et al.*, 2014; Gowri, 2016; Tyagi and JitSingh, 2004) causes complete esophageal obstruction. Lateral cervical and thoracic radiograph was standard diagnostic tool to evaluate the obstructed esophagus in ruminant (Pentyala *et al.*, 2019). Surgical intervention for cervical esophageal obstructions was carried out by exposure of the cervical esophagus (n=3), cervical esophagotomy in twenty-five buffaloes (Marzok *et al.*, 2020). To conclude, the rare case of cervical esophageal obstruction due to nylon rope in advance pregnant buffalo and it was successfully relieved via esophagotomy.

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