

MANAGEMENT OF CERVICO-VAGINAL PROLAPSE IN NON DESCRIPT BUFFALO - A CASE REPORT

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ABSTRACT

Uterine prolapse is a common post partum obstetrical malady of buffaloes occurring during the third stage of parturition. A 8 year old non descript buffalo, in the 3rd lactation, was presented at the farmers premises at Akkalkuwa, District Nandurbar, Maharashtra, India with a complaint of cervico-vaginal prolapse which was reported to occur after 3 h of expulsion of the fetal membranes. Clinico - gynaecological examination revealed temperature of the animal was 101.3°F, heart rate 83 per minute, respiration rate 23 per minute, congested mucous membranes, straining and signs of discomfort. Examination revealed that the temperature of the animal was 101.3°F, heart rate 83 per minute, respiration rate 23 per minute, congested mucous membranes. Blood analysis revealed haemoglobin level 8 gm/dl, differential leucocyte count revealed neutrophils 62%, eosinophils 9%, basophils 0%, lymphocytes 27% and monocytes 2%. The biochemical analysis revealed serum calcium 7.01 mg/dl, serum phosphorus 3.14 mg/dl, serum magnesium 1.21 mg/dl. The case was rationally treated following the chronology of reduce, reposition and retain. Reduction of the prolapsed mass was initiated with ice packs, uterine mass was elated to relieve the urinary bladder and make space for uterus. The

uterine mass was repositioned and retained with the help of rope truss untill straining stopped. Rational treatment to contain infection and initiate healing was administered along with mineral and vitamin supplementation. The buffalo recovered uneventfully without an episode of relapse. The case report highlights the non invasive method of management of cervico-vaginal prolapse in buffalo.

Keywords: *Bubalus bubalis*, buffaloes, cervico-vaginal prolapse, reduction, reposition, retention, rope truss

INTRODUCTION

Uterine prolapse is a common post partum obstetrical malady of buffaloes occurring during the third stage of parturition. It is estimated that 0.3 to 0.5% of all parturitions end up into uterine prolapse (Luktuke and Chaudhary, 1965). It is considered to be an emergency as any delay in repositioning the uterus back to normal may lead to trauma induced shock and death. The incidence is high during the first 48 h after parturition in postpartum buffaloes. The factors such as hypocalcaemia (Risco *et al.*, 1984), hypophosphatemia, hypomagnesemia, retained fetal membranes, fetal traction, oversized fetus, chronic disease and paresis have been known

to predispose the postpartum buffaloes to prolapse. Prolapsed uterine mass, over a period of couple of hours, appears swollen, edematous, congested, lacerated, partially necrosed and stained with mud and faeces (Roberts, 1971). If veterinary intervention is initiated within 24 h of the prolapse a encouraging outcome can be anticipated (Patil, 2014).

CASE HISTORY

A 8 year old non descript buffalo, in the 3rd lactation, was presented at the farmers premises at Akkalkuwa, District Nandurbar, Maharashtra, India with a complaint of cervico-vaginal prolapse (Figure 1) which was reported to occur after 3 h of expulsion of the fetal membranes. A gynaecological examination revealed that the temperature of the animal was 101.3°F, heart rate 83 per minute, respiration rate 23 per minute, congested mucous membranes. The animal was found to be straining and signs of discomfort were clearly visible, uterine mass consisting of the cervix and the vagina was swollen, congested, haemorrhagic and stained with dung and filth. Blood analysis revealed haemoglobin levels of 8 gm/dl, differential leucocyte count carried out within an hour of collection in the laboratory revealed neutrophils 62%, eosinophils 9%, basophils 0%, lymphocytes 27% and monocytes 2%. The biochemical analysis revealed serum calcium 7.01 mg/dl, serum phosphorus 3.14 mg/dl, serum magnesium 1.21 mg/dl. Present case report deals with the successful management of cervico-vaginal prolapse in buffalo using rope truss

CLINICAL MANAGEMENT

The prolapse management in buffaloes if governed by three R's; sequentially, reduction, repulsion and reposition. The above rule was followed in the management of the prolapse.

Reduction

The buffalo was given 5 ml of 2% lignocaine (Lignocaine 2%, Cadila, India) epidurally in the 1st intercoccygeal space to facilitate the manipulation and minimise the straining. After five minutes the prolapsed mass was washed with tap water to get rid of dung and mud attached to it. Potassium permagnet (1:1,000 in NS) was used to wash the prolapsed mass with gentle handling. The mass was the place on a clean tarpaulin sheet and was applied with ice for 10 minutes. The reduction of the size was notable to naked eyes.

Repulsion

The urinary bladder emptying was first initiated by lifting the mass upwards (towards the base of the tail) so that the pressure on external urinary meatus is reduced, gentle massaging of the urethra led to jet of urine flowing out (Figure 2). The mass was gently pushed up and repulsed in synchrony with the weak straining effort of the buffalo. The mass was pushed inside and repositioned (Figure 3).

Repositioning

The recurrence was contained by using the rope truss method (Figure 4) (Jahangirbasha, 2016). A rope truss was made from a cotton thread and was applied for 72 h continuously. The animal could pass dung and urine without obstruction.

Injection Strepto-penicillin 2.5 gm, Inj. Meloxicam at 0.3 mg/Kg, Inj. Chlorpheniramine



Figure 1. Cervico-vaginal prolapse with severe laceration.



Figure 2. Upward elation of the uterine mass to relieve the urinary bladder.



Figure 3. Reposition of the prolapsed uterine mass.



Figure 4. Retention with rope truss (Lateral view).

maleate were given intramuscularly, while Inj. Ringers lactate 1,000 ml, Inj. Dextrose normal saline 1,000 ml, Inj Calcium borogluconate-phosphorus and magnesium 300 ml, Inj. B1, B6 and B12 10 ml were given intravenously. Native Ayurveda based involuant bolus was advised for prevention and faster involution of uterus. The animal was also advised chelated mineral mixture at 50 gm /day. The above treatment was repeated except for the calcium and fluids for three days and the vitals were regularly monitored. The buffalo showed an uneventful recovery without recurrence of prolapse.

DISCUSSION

The uterine prolapse in buffaloes is an emergency situation that needs swift veterinary intervention. Myometrial contractions wane out progressively and ensures the complete involution of the uterus. The cervix reduces in length and circumference during the first five weeks postpartum, thus any delay of repositioning the everted uterus to normal may fail with time. In case of dystocia, traction leads to eversion of the uterus due to the pressure exerted over the placentomes. Many cases of uterine prolapse involving the deficiencies of minerals like calcium, phosphorus and magnesium have been reported by many workers (Ahmed *et al.*, 2005; Khamees *et al.*, 2014; Patra *et al.*, 2015; Pandey *et al.*, 2007; Pandit *et al.*, 1982; Lakde *et al.*, 2014).

Buffaloes delivering male calves above 30 kg were found to be more prone to uterine prolapse and a gestation length of more than 306 days had a significantly higher incidence of utero-vaginal prolapse (Roberts, 1971). Blood analysis revealed that buffaloes with a low Haemoglobin

concentration were more susceptible to uterine prolapse, whilst in prolapse the differential leucocyte count showed leucocytosis and neutrophilia (Lakde *et al.*, 2014). The repositioning of the uterine mass requires reduction as oedema sets in immediately after a couple of hours. There are many methods to reduce the prolapsed mass, of which applying ice packs, cold water, injection oxytocin, injection ergometrine and alum paste are regularly used by field veterinarians (Kumbhar *et al.*, 2009; Raju *et al.*, 2018; Singh *et al.*, 2018; Kumar *et al.*, 2013). The method for reduction must be placid and must be compatible with the delicate uterine tissue. Ice packs provide reduction and soothing of the pain and are very compatible with necrosed and haemorrhagic tissue (Sharma *et al.*, 2014). A distended urinary bladder arbitrates the normal repositioning of the uterus hence it is of utmost value to relieve the urinary bladder. Catheterisation is a common way of draining the accumulated urine from the bladder and making space to accommodate uterus. However non-invasive method of elating uterine mass towards the tail base to reduce the pressure on external urinary meatus which in turn makes way for the urine to flow out are highly commendable for field use (Gnanasubramanian *et al.*, 2000). The uterine mass must be gently handled and pushed, a gentle handling prevents further damage to the delicate uterine tissue. Uterine prolapse are recurrence prone, thus inviting a retention supervision to avoid repeated prolapse. Buhner's sutures (vulvar sutures) (Kapadiya *et al.*, 2015) and rope truss (Jahangirbasha, 2016) are the available options for the retention. Rope truss is a non-invasive method and when applied with sufficient care is capable of worthy retention. Rope truss can be applied for 72 to 96 h continuously and can be discontinued once the straining is reduced. Clinical therapy

includes use of fluids, steroids, antibiotics, antihistaminics, oxytocin, calcium therapy and mineral supplementation for speedy recovery.

The case report highlights the use of non-invasive method of management of cervico-vaginal prolapse in the buffaloes. If swift veterinary intervention, gentle handling of tissue, non-invasive retention methods can be applied a favourable prognosis can be warranted.

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