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VAGINAL CYSTOCELE ALONG WITH EVISCERATION IN UTERINE PROLAPSED BUFFALO

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ABSTRACT

A primiparous crossbred buffalo presented in Veterinary Clinical Complex, Palampur with history of uterine prolapse since last 6 to 8 h. Exploration of prolapsed mass revealed vaginal cystocele along with intestinal loops eviscerating through cervico-vaginal tear. After reposing the urinary bladder and intestines through tear, cushing sutures technique using Vicryl No. 2 were applied to close the torn cervico-vaginal region. Uterine prolapse was managed as per standard procedures but animal collapsed 48 h after the treatment due to peritonitis.

Keywords: *Bubalus bubalis*, buffaloes, evisceration, vaginal cystocele, uterine prolapse

INTRODUCTION

Uterine prolapse is a third stage parturition complication in buffaloes described as eversion of uterus through the vulvar opening. It mostly occurs within 24 h after fetal delivery or in few cases immediately after parturition (Hopper, 2015) and is considered as common peri-parturient complication (3rd; Manzoor *et al*., 2013) and (4th; Atwal *et al*., 2002) affecting reproduction in buffaloes. Predisposing factors for the malady includes, rough manipulation of genital tract while handling dystocia, relaxation of constrictor vestibuli muscle and atony of vaginal musculature (Purohit, 2014). Intensive as well as semi-intensive system of rearing is associated with higher incidence of genital prolapse (Bhatti and Ahmad, 2006). Seasonal variations with higher incidence during winter and spring (Kumar and Singh, 2009) and humid summer (Bhatti and Ahmad, 2006; Pal, 2015) have been reported in buffaloes. Feeding of mouldy feed has also been attributed to genital prolapse (Kumar and Singh, 2009). Incidence of genital prolapse increases with parity (Akhtar *et al*., 2012; Pal, 2015); Pal (2015) reported higher incidence during 2nd and 3rd lactation in comparison to 1st and 4th lactation. Complications do arise in cases of uterine prolapse, common amongst them is eversion of urinary bladder described as vaginal cystocele (VC) and sometimes intestine also gets entrapped inside the prolapsed mass. Vaginal

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cystocele can either be of two types i.e prolapse of bladder through vagina or protrusion of the bladder through the rupture of the vaginal floor. First condition is commonly observed in mare due to presence of large diameter of urinary meatus and distensible urethra supported by the forceful straining efforts while foaling. The everted organ occupies vulva and will be visible between labia resulting in red velvety appearance. In latter type, bladder lie in vagina or sometimes hang down from the vulva. The vaginal tear will be evident on palpation (Noakes *et al*., 2019). Prognosis of case may vary depending on the type of organ present inside the prolapsed mass and duration of the case. Chances of immediate reoccurrence can be eliminated if the reposition is done completely without any invagination of the uterine horn (Hopper, 2015).

CASE HISTORY AND CLINICAL OBSERVATION

A primiparous crossbred buffalo presented in Veterinary Clinical Complex, Palampur with history of uterine prolapse along with evisceration and profuse bleeding since last 6 to 8 h. The animal delievered live healthy female calf two days ago. Exploration of prolapsed mass revealed lacerated uterus and cervix, fully distended urinary bladder along with intestinal loops eviscerating through cervico-vaginal tears and hanging upto hock (Figure 1).

TREAMENT AND DISCUSSION

The buffalo was pre-medicated with anti-shock therapy (Inj. dexamethasone 40 mg, i.m, Dexona), Inj. Tranxemic acid (5 mg/kg b.wt, i.m, Texableed) and epidural analgesia was achieved by using 2% lignocaine hydrochloride (Inj. Lidocaine 1 ml/100 kg b.wt.). Thorough cleaning of eviscerated intestinal loops, urinary bladder and prolapsed area was carried out with diluted potassium permanganate (1:1000). Urine was aspirated using sterilized 24 G needle attached with 20 ml syringe followed by catheterization of urinary bladder with Foley catheter 18 FG. Urinary bladder and intestines were reposed through the tear which was further sutured with cushing suture technique using Vicryl No. 2. The version of uterus was done with palm and fist after thorough application of antiseptic ointment (Soframycin) followed by Buhner's suturing using umbilical tape and Inj. Oxytocin 100 I.U. i.m to avoid reccurrence (Figure 2). The fluid therapy was done with inj. Ringer's Lactate (4 litres), Inj. Normal saline (2 litres), Calcium borogluconate (Inj. Mifex 300 ml, slow I/V, 150 ml s/c) by i.v route along with Inj. Flunixin Meglumine (1.5 mg/kg b.wt, Megludyne) and Inj. Ceftrixone tazobactobactum (4 gm i.m, Intacef-Tazo). Urinary antiseptics *viz.* Sodium acid phosphate (30 gm) and Hexamine (15 gm) were also given orally along with supportive therapy. All in vain, as the animal collapsed 48 hrs after the treatment due to peritonitis.

Multiple predisposing factors may be interrelated to the malady include poor uterine musculature tonicity, increased intra abdominal pressure or may be a sequelae to application of excessive traction for per vaginal delivery (Jackson, 2004). The condition gets complicated with invagination of urinary bladder commonly posing emergent threat. Sometimes, there may be rupture of vagina/cervix leading to evisceration of intestinal contents demanding immediate attention (Veeraiah and Srinivivas, 2010; Noakes *et al*., 2019).

Figure 1. Uterine prolapse along with vaginal cystocele and evisceration (Before treatment).

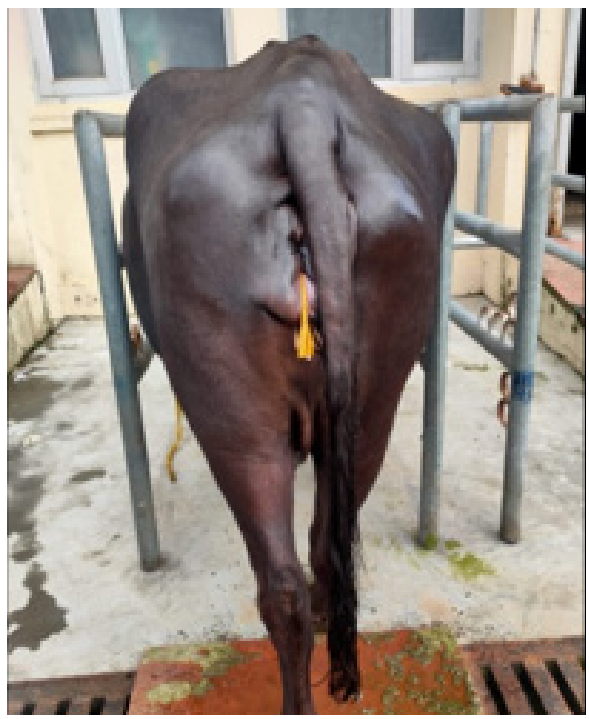

Figure 2. Buffalo after successful management of the uterine prolapse complications.

Drainage of urine from bladder and reposition of the bladder occur under the epidural anesthesia, subsequently followed with repairing the ruptured vaginal floor. Improper handling of prolapse of uterus caused protrusion of abdominal viscera through ruptured vagina and the interference in the blood supply to the prolapsed tissue results in edema and cyanosis which may eventually lead to gangrene of uterus (Selvaraju *et al*., 2020) in a buffalo. Intestinal loops eviscerating from the tear can cause severe intestinal damage and may also lead to peritonitis which may be preceded by few hours of anorexia, pain, ruminal stasis and intestinal ileus. Bladder eversion and intestinal entrapment along with everted uterus may result in poor prognosis (Hopper, 2015) whereas prompt replacement of prolapsed uterus with sufficient care assures good prognosis (Purohit *et al*., 2018). Ahuja *et al.* (2020) observed marked discontinuation of uterine musculature along with hyaline degeneration in a case of Grade III cervico vaginal pre-partum prolapse complicated by presence of intestines and urinary bladder. Kolangath *et al.* (2020) observed significantly higher incidence of uterine prolapse in buffalo with gestation length ≥306 days delivering male calves' ≥30 kg. Lower haemoglobin (Kolangath *et al*., 2020), serum calcium (Purohit *et al*., 2018) along with leucocytosis and neutrophilia (Lakde *et al*., 2014) have been pragmatic in cases of uterine prolapse in buffaloes.

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