

**Case Report****Case report on uterine prolapse in a Buffalo and its management**

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Uterine prolapse is a common obstetrical problem, adversely affects productive and reproductive performance of buffalo by hampering postpartum return to estrus, conception rate and calving interval. A three years old buffalo having history of recent parturition was suffering from prolapsed mass coming throughout the vagina. On gynae-clinical examination it was diagnosed as uterine prolapse as the mass was huge and presence of maternal caruncles on it. The prolapsed mass was replaced manually, in recumbent condition using Buhner's suture. The buffalo was recovered uneventfully without any complication.

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**1. INTRODUCTION**

Prolapse defines abnormal repositioning of an organ from its normal anatomical position (Roberts, 1971). Uterine prolapse are frequently observed in cattle, buffaloes, sheep and goats. Uterine prolapse is most commonly seen in cows (Wachida and Kisani, 2011), then less often in buffalos, does and ewes (Patra et al., 2014), and least common in mare and rare in deer (Robling et al., 2012). A uterine prolapse is usually seen immediately or within a few hours of calving, but in rare cases it may be seen in 24 hours to 48 hours after parturition (Blowery and Weaver, 2011). Compared to the vaginal prolapse, the uterine prolapse is larger, longer (usually hanging down to the hocks when standing), deep red in color and covered with the "buttons" where the placentomes are attached. Early diagnosis and correction of cases of prolapsed uterine tissue is very vital in ensuring a good

prognosis and survival of the affected buffalo (Abdullah et al., 2016). Poor and delayed diagnosis leads to bleeding, contamination resulting in infection, shock, gangrene formation and death (Andrewa et al., 2004).

The etiology of uterine prolapse is still not clear, but many factors may act as potential risk factors (Hanie, 2006). These includes, poor uterine tone, increase straining, the weight of retained fetal membranes, conditions that increased intra-abdominal pressure such as tympany (Ennen et al., 2011), excessive estrogen content in the feed, deficiencies of serum calcium, magnesium and phosphorus during gestation and the postpartum period have been found to be significantly associated with the occurrence of uterine prolapse in buffalo (Medina et al., 2004; Meisner and Anderson, 2008). A uterine prolapse is considered a medical emergency; therefore, this condition needs quick attention. If the affected

buffalo is not treated quickly, she may go into shock or die due to blood loss. The main objective of this study is to introduce the technique and management of a prolapsed case in buffalos in field condition with farmers and local veterinarians.

## 2. CASE HISTORY AND CLINICAL MANAGEMENT

A 3-years-old non-descriptive buffalo weighing about 180 kgs in her 2<sup>nd</sup> parity was attended at farmer's doorstep at Charfassion Upazilla, Bhola. The buffalo had history of calving 8 hours before and hanging of reddish protruded mass from the vagina. Interaction with farmer revealed that the cow was off fed since the parturition. On clinical examination, it was found that the animal was lying in sternal recumbent condition with pale mucous membrane and there was complete eversion of uterus exposing its fetal membranes and maternal caruncles underneath. The uterus was enlarged and edematous with hemorrhage and the buffalo was too weak to stand having severe straining. The body temperature (101°F), respiratory rate (25/min) of the buffalo was measured.

Epidural anesthesia was performed by infiltration of 2 ml of lidocaine hydrochloride solution into the 1<sup>st</sup> intercoccygeal vertebrae to prevent straining during replacement of the prolapsed organ. A filled gunny bag was put under the hind-limbs of buffalo in order to elevate the uterus. The perineal region of the cow was cleaned to remove the debris and fecal materials with normal saline and low concentration (1:1000) of potassium permanganate solution thoroughly. Application of ice cubes and sugar was done to reduce the size of the mass. As buffalo was in recumbent position, the prolapsed mass was lifted by both the hands to the level of the vagina, and it was pushed with a moderate force into the vagina, sense of relief seen in the animal indicated successful replacement of the uterus. Then the Buhner's suture with sterile cotton thread was placed in the vulva as a retention technique to hold the uterus in place. After that, the animal was treated with antibiotic Inj. Ceftriaxon sodium 10mg/kg I/M, Inj. Oxytocin 5 IU/animal I/M, Antiinflammatory/analgesic, Inj. Meloxicam 10mg/kg I/M, Inj. Antihistaminic 10ml/animal I/M and I/V fluid therapy Inj. Normal Saline 3liter/day and Inj. Calcium borogluconate 1 ml/kg I/V. The

same treatment was followed for five days except Inj.Oxytocin. The vaginal suture was removed after one week. The animal found healthy with plenty of milk production for the calf.



Figure 1: Buffalo with prolapsed uterus



Figure 2: Buffalo after application of Bhuner's suture

## 3. DISCUSSION

Uterine prolapse is one of the most common reproductive disorders, accounts for about 22% of the total reproductive disorders in buffaloes according to Kumar et al. (2013). Prolapse of the uterus normally seen during the third stage of labor at a time when the fetus has been expelled and the fetal cotyledons has separated from the maternal caruncles (Noakes et al., 2001) which is also observed in present case. A caudal epidural anesthesia was performed before replacement of a uterine prolapse which is consistent with case reported by Raju et al. (2018). The uterine prolapse can be corrected either in standing or recumbent position (Hanie, 2006), as the buffalo was unable to stand up the case was handled in recumbent condition. Sugar solution and ice packs was applied to the edematous prolapsed mass to reduce its volume before replacement which is supported by Gowda et al. (2014). In order to help in rapid involution of uterus and

cervix and thus to prevent recurrence of the prolapse, intramuscular oxytocin was administered post operatively which is also observed in the case of vaginal prolapse reported by Hasan et al. (2017). In this case, cleaning was done, and the cleansed uterine mass was elevated to the level of vulva to reduce congestion as described by Potter (2008), and then replaced by applying steady pressure beginning at the cervical portion and gradually working toward the apex which is followed in accordance with Paul et al. (2017). Laceration, necrosis or infection did not occur because of early treatment that was also mentioned by Fubini and Ducharme (2006). To prevent secondary bacterial infection broad-spectrum antibiotic was administered for 5 days after replacement of prolapsed uterus as described by Borobia (2006). Prognosis of uterine prolapse was favorable which is also indifferent with the findings of Patra et al. (2015).

#### 4. CONCLUSIONS

Success of treatment depends on the type of case, the duration of the case, the degree of damage and contamination. Uterine prolapse can be successfully managed by replacing it into normal position and by application of strong suture material to avoid recurrence, along with administration of supportive treatment with antibiotics, oxytocin, calcium, analgesics and fluids as post operatively. In recumbent buffalos, raising the hind legs could improve the recovery rate and breeding performance after treatment. Successful clinical management of uterine prolapse with better prognosis is possible, if treated as emergency.

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