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Post-partum cervico-vaginal prolapse in a non-descriptive riverine buffalo: A case report

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Abstract

The present case report deals with successful management of cervico-vaginal prolapse in six-year-old non-descriptive buffalo on the fifth day of post-partum. The prolapsed mass was initially washed with diluted (1:1000) Potassium Permanganate solution. It was reduced and replaced to its normal position under epidural analgesia and retained with peri-vulvar subcutaneous sutures with Buhner needle. The animal recovered uneventfully following standard treatment protocols and management.

Keywords: cervico-vaginal prolapse, buhner's suture, potassium permanganate, epidural analgesia

Introduction

Prolapse is falling or slipping of a body part from its usual position (Sharma *et al.*, 2017)^[13]. Prolapse of genitalia is a common reproductive problem which adversely affects the overall performance of the affected animals by affecting the length of the postpartum return to oestrus, conception rate and inter calving period (Akhtar *et al.*, 2012)^[2]. Prolapse of Uterus is not a hereditary complication which occurs immediately after parturition and occasionally up to several hours afterwards (Roberts, 1971)^[11]. It is a major but not very common reproductive disorder in cattle and buffaloes (Ahmed *et al.*, 2005)^[1]. Prolapse of vagina and cervix mainly occurs during advanced pregnancy and uterine prolapse following parturition (Bhattacharyya *et al.*, 2012)^[3]. The incidence of cervicovaginal prolapse is nearly 43 % in buffaloes (Samad *et al.*, 1987)^[12]. Mishra *et al.* (1997)^[6] found vaginal prolapse more in pre-partum (52.4 %) than postpartum (22.2 %). In cattle depending upon the severity of prolapse, genital and other tissues involvement, vaginal prolapse has been graded as Grade-I to Grade-IV. In Grade-I the vagina prolapses intermittently when the animal lies down. When the prolapse continues with or without retroflexion of the urinary bladder, it is termed Grade-II, and when external os of cervix involved in it termed Grade-III. Trauma, infection or necrosis or chronic prolapse with fibrosis of Grade-II or Grade-III prolapse which cannot be replaced is considered as Grade-IV (Meisner and Anderson, 2008)^[5]. The present paper deals with a case of third-degree postpartum cervicovaginal prolapse on the fifth day of normal parturition in a non-descriptive riverine buffalo which is a rare case.

History and Clinical Observations

A six-year-old non-descriptive buffalo was presented to Teaching Veterinary Clinical Complex (TVCC) Mannuthy, Kerala with a complaint of prolapsed genitalia on the fifth day after its second parturition. Parturition was normal and the calf was healthy and suckling. The animal was in standing position. Oedematous prolapsed mass was hanging at the vulva and it was soiled. After washing with diluted potassium permanganate solution, a detailed examination was done. Cervix and vagina were prolapsed, external-os of the cervix was closed and vaginal floor mucosa was torn (Fig. 1). Serous discharge noticed from the prolapsed mass. The rectal temperature recorded was 101.5° F. Conjunctival mucus membrane was slightly congested. The animal was showing frequent straining.

Treatment

Epidural analgesia was achieved by six ml of two per cent Lignocaine HCl to reduce the straining. Prolapsed mass and perineal region of the animal was washed with diluted (1:1000) potassium permanganate solution. Prolapsed mass was lifted to relieve the pressure on the external urinary meatus to facilitate passage of urine, later catheter was fixed to the urinary

bladder and it was evacuated completely. Oedema of prolapsed mass was reduced by applying hypertonic Magnesium sulfate ($MgSO_4$) paste (Fig. 2). The torn vaginal floor was sutured with inversion pattern using chromic catgut no-1. The prolapsed mass was again washed with a diluted potassium permanganate solution (Fig. 3). Prolapsed mass was gently repositioned into its normal anatomical position as per standard obstetrical procedures. After replacement hand was kept for some time and infused warm saline water of two litres (Fig. 4). Then purse-string suture was applied using double threads of sterile cotton umbilical tape leaving three finger space between vulval lips and a slip knot was placed at the ventral commissure of the vulva (Fig. 5 and 6). Postoperatively the animal was treated with Inj. Calcium borogluconate-450 ml I/V once, Inj. Ceftiofur-550 mg I/M for three days, anti-inflammatory and anti-histaminic drugs were also given for three days. The animal recovered successfully without any complication.

Discussion

Genital prolapse more commonly occurs during late gestation and the postpartum period because of multiple causes. Rarely, it occurs in non-pregnant buffaloes which are in oestrus (Nanda and Sharma 1982) [7]. Pal (2003) [9] recorded the highest incidence of genital prolapse in second and third calving compared to first and fourth and subsequent calving. Cervico-vaginal prolapse is more common than uterine prolapse and it looks like a pink mass of tissue having a size of volleyball (Patil *et al.*, 2014) [10]. In the present case also prolapse occurred in the second parturition.

Exact aetiology for prolapse is still unknown, however, increased plasma oestrogen levels have been correlated with pre-partum prolapse and other reasons like hypocalcaemia, increased perivaginal fat, intra-abdominal pressure, forced extraction during dystocia and ingestion of feedstuff rich in estrogenic compounds (Noakes *et al.*, 2001) [8]. Reason for the prolapse of vagina and cervix in the present case may be due to atony of the reproductive musculature which may be due to hypocalcemia or increased level of plasma estradiol.

In the present case vaginal floor, roof and lateral walls were prolapsed along with cervix and they were reduced, replaced and retained successfully, hence it was categorised under Grade-III vaginal prolapse. Medina *et al.* (2004) [4] reported previous vaginal prolapse is considered a significant risk for uterine prolapse in buffaloes. Hence it is concluded that Grade-III prolapses can be managed by perivaginal subcutaneous sutures (purse-string) with Buhner needle and supportive therapy.



Fig 1: Cervico-vaginal prolapse with vaginal tear



Fig 2: Application of $MgSO_4$ crystals

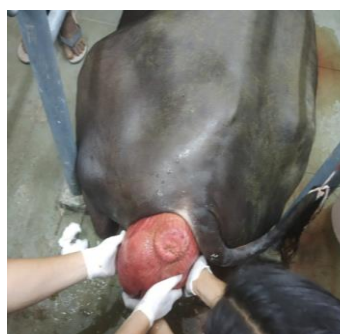


Fig 3: Prolapsed mass reduced and washes with P.P solution



Fig 4: Reposition of prolapsed mass

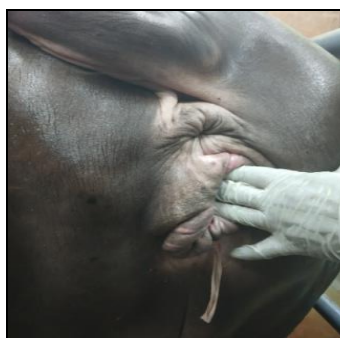


Fig 5: Purse string suture by leaving 3 finger opening

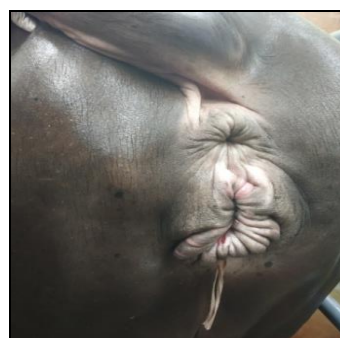


Fig 6: After purse string suture

Conclusion

The case of post-partum cervico-vaginal prolapse in a non-descript riverine buffalo was treated successfully by following standard treatment protocols and management.

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