



Post-Partum Uterine Eversion and Its Management in A Murrah Buffalo: A Case Report

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Abstract

A 6-year-old, one-day post-partum Murrah buffalo in third parity with uterine eversion was brought to Veterinary Clinical Complex (VCC) of the university. After epidural anesthesia, the everted uterine horns were washed thoroughly with a mild antiseptic solution and the urinary bladder was emptied. The hind quarter of the animal was raised and everted uterine horns were repositioned by moderate force and modified Buhner's sutures were applied using infusion (drip) set tubing as suture material to prevent recurrence of the condition.

Keywords: Buffalo, Uterine eversion, Modified Buhner's sutures

Introduction

Prolapse of genitalia is one of the major problems causing heavy economic losses to livestock owners through negative influence on the productive and reproductive performance of the buffalo (El-Wishy, 2007). Uterine prolapse is the eversion of uterus from its normal position in pelvis further hanging from vulva. The everted uterus is visible as a large mass protruding from the vulva and may extend up to the level of hock joint. It has been estimated that 0.3% to 0.5% of all calving's terminate in a prolapse of uterus (Bhoi *et al.*, 2009). In most cases, it occurs immediately after parturition or occasionally up to several hours afterward and rare cases, it may occur 48 to 72 hours after parturition (Roberts, 1971). Immediately after prolapse, tissue appears almost normal, but within a few hours become enlarged and edematous (Dey *et al.*, 2017). For easy replacement, uterine prolapse cases must be attended with priority because of rapid development of edema, contamination, mucosal trauma and cervical closure may render the replacement difficult. The predisposing factors for post-partum uterine eversion include long mesometrial attachment, violent or strong tenesmus, atonic and flaccid uterus, relaxation of pelvic ligaments, removal of placenta attached to the ovarian pole of the gravid horn, lack of exercise, dystocia, hypocalcaemia, feeding of clover 86



leaves and low plan of nutrition (Thangamani *et al.*, 2018). The present case study puts on record a successful management of a case of post-partum complete/total uterine eversion in a Murrah buffalo with recent history of manual removal of placenta.

Case history and Observations

A 6-year-old Murrah buffalo in third parity with the history of normal parturition one day before and uterine eversion after manual removal of placenta was brought to VCC of the university (Fig. 1). The animal was recumbent but clinical observations of the animal showed normal temperature (102.4°F) and normal heart rate (78 bpm). Mucous membranes of both the eyes were congested. The case was handled by local paraveterinarian staff and referred to VCC, LUVAS, Hisar. Before handling the case, caudal epidural anesthesia (5 ml of 2% Lignocaine hydrochloride) was given into sacrococcygeal space with an 18gauge needle to reduce straining during handling.

The everted uterine horns were washed thoroughly with a mild antiseptic solution (1:1000 potassium permanganate) for removal of the necrotic tissue and debris. The urinary bladder was emptied by applying two 16 gauze needles at two different points of bulging through uterine wall as by lifting of uterine mass urine was not passing out. The everted horns were lubricated with lignocaine and antibiotic cream containing Soframycin gel was applied locally. Subsequently, hind quarter of the animal was raised and the uterine horns were properly repositioned by applying moderate force. Modified Buhner's sutures were applied using infusion (drip) set tubing as suture material to prevent recurrence of the condition (Fig.2) as described by Bhattacharyya *et al.* (2012) and Singh *et al.* (2018). The animal was administered with injection oxytocin 50 I.U. slow intravenous in one liter of normal saline solution for one day, three litres of 5% DNS intravenously for three consecutive days, 450 ml of Calcium magnesium borogluconate intravenously slowly once and 500 µg of injection Cloprostenol intramuscularly once. In addition to this, inj. Ceftiofur Sodium 1g, inj. Ergometrine 80 mg, inj. Flunixin meglumine 1000mg and inj. Chlorpheniramine maleate 227.5mg intramuscularly were administered for five days. The dam recovered without any complication and modified Buhner's sutures were removed after one week.

Eversion of uterus is a common complication in the third stage of labor in bovines. The principle for handling of uterine prolapse/eversion is 3 'R' Principle (Reduction, Reposition, Retention). Trauma, injury and necrosis of the everted uterine horns might result in the exaggerated release of inflammatory mediators and toxins and may lead the animal to shock. The size of the everted mass slowly increases due to distention of the urinary bladder with urine because of the kinked urethra (Thangamani *et al.*, 2018).





Fig. 1. Eversion of uterine horns



Fig. 2. Application of modified Buhner's sutures using infusion (drip) set tubing as suture material

Discussion



The uterus should be lifted to relieve the pressure on the external urinary meatus to facilitate passage of urine (Gnanasubramanian *et al.*, 2000). To prevent secondary bacterial infection an injectable broad-spectrum antibiotic is recommended after replacement of prolapsed uterus (Plunkett, 2000). A limited number of comprehensive studies concerned with the survival rate and fertility of affected cows have been reported, yet similar studies on buffaloes are not available (Purohit *et al.*, 2018). The main goal in the treatment of uterine prolapse is to replace the organ followed by a method to keep it in the retained position (Senthil and Yasotha, 2015) and to assure the favorable prognosis.

Conclusion

Early intervention and prompt replacement of everted uterus with sufficient care assures good prognosis and future fertility of the animal.

References

- Bhattacharyya, H.K., Fazili, M.R., Buchoo, B.A. and Akand, A.H. (2012). Genital prolapse in crossbred cows: prevalence, clinical picture and management by a modified Buhner's technique using infusion (drip) set tubing as suture material. *Veterinarski Arhiv*. 82 (1): 11-24.
- Bhoi, D.B. and Parekar, S.S. (2009). Post-partum uterine prolapse in a non-descript buffalo. *Vet. World*. 2(4): 149-152.
- Dey, T., Poddar, S. and Barua, M. (2017). Clinical management of uterine prolapse in non-raising hindquarter condition of cross breed dairy cow. *Vet. Sci. Res. Review*. 3(1): 13-16.
- El-Wishy, A.B. (2007): The postpartum buffalo: I. Endocrinological changes and uterine involution. *Anim. Reprod. Sci*. 97: 201-215.
- Gnanasubramanian, T., Balasubramanian, S., Joseph, C. and Kathiresan, D. (2000). Vagino-cervical prolapse with partial uterine prolapse in a she buffalo. *Indian J. Anim. Reprod*. 21(2): 161.
- Plunkett S.J. (2000). Vaginal edema (hyperplasia) or prolapse and uterine prolapse. Textbook of emergency procedure for the small animal veterinarian, WB Saunders, pp: 217-218.
- Purohit, G. N., Arora, A.S., Gocher, T., Gaur, M., Saraswat, C.S. and Mishra, P. (2018). Uterine prolapse in buffaloes: A review. *Asian Pacific J. Reprod*. 7(6): 241-247.
- Roberts, S.J. (1971). *Veterinary Obstetrics and Genital Disease* 2nd Edn., CBS Publishers and Distributors, India. Pp: 308-313.
- Senthil, A.K. and Yasotha, A. (2015). Correction and management of total uterine prolapse in a crossbred cow. *J. Agric. Vet. Sci*. 8 (1):14-16.
- Singh, G., Niwas, R., Dutt, R., Patil, S., Sharma, K. and Yadav. (2018). Prolapse of complete gravid genitalia in a pre-partum Murrah buffalo and its surgical management: A rare case. *Inter. J. Vet. Sci. Anim. Husband*. 3(5): 113-115
- Thangamani A., Srinivas, M. and Prasad, B.C. (2018). A comprehensive overview on genital prolapse in domestic animals. *Res. Review J. Vet. Sci. Technol*. 7(2):1-4.

