Short Communication

CLINICAL MANAGEMENT OF GENITAL PROLAPSE IN GRADED MURRAH BUFFALOES

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ABSTRACT

Pre and postpartum genital prolapse pose a threat to buffalo farmers and incur a financial loss in terms of milk loss and treatment costs. Effective clinical management warranted to treat the genital prolapse in field condition. In this context the present study was carried out to compare different therapeutic regimens for the management of genital prolapse in graded Murrah buffaloes. Buffaloe heifers (n=6) and She buffaloes (n=14) with a history of straining, discomfort, protruded posterior vagina and cervix through vulval lips were diagnosed with pre and postpartum genital prolapse. Depending on the severity of the prolapsed mass, either with or without oedema, different treatment modalities (finely powdered sugar, POP IN spray®, ice cubes, and herbal PROLAPSE IN powder®) were tested and were found to be effective without any complications.

Keywords: Buffaloes, Buhner's suture, Genital prolapse, Pop in spray, Prolapse in powder, Rope truss

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The eversion of the vagina, cervix, and uterus during the late gestation or occasionally after parturition, particularly in ruminants, is referred to as genital prolapse (Sharma and Dhami, 2007). The two common genital prolapse conditions frequently encountered in the field are cervico-vaginal prolapse (CVP) and total uterine prolapse (TUP). Pre-partum prolapse is defined as a prolapse that occurs 2 to 8 weeks prior to delivery (Praveen and Prasad, 2015), whereas postpartum uterine prolapse is a complication that occurs 48 to 72 hours after delivery (Kumar *et al*., 2013). Discomfort, laceration, protrusion of vagina, cervix, and uterus through vulval lips, and oedema of the prolapsed mass are the most apparent signs observed (Thangamani *et al.,* 2018). Both pre-and postpartum prolapse pose a threat to buffalo farmers and incur a financial

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loss in terms of milk loss and treatment costs (Bhoi and Parekar, 2009).

The primary aim of the treatment is to reduce the oedema of the prolapsed mass using a hypertonic solution (made from finely powdered sugar), POP IN spray®, or herbal PROLAPSE IN powder® (Senthilkumar, 2014). On the other hand, ice cubes effectively reduced the oedema of the prolapsed mass (Ahuja *et al*., 2016). A literature review revealed that no studies had been conducted on single or combined treatment regimens for pre and postpartum prolapse and its clinical management with varying degrees of severity. As a result, the present study was aimed to find an effective therapeutic regimen (s) for pre and postpartum genital prolapse in graded Murrah buffaloes.

Pre and postpartum genital prolapse was diagnosed in 20 graded Murrah buffaloes presented to the Obstetrical Unit of Department of Veterinary Gynaecology and Obstetrics, NTR CVSC, Gannavaram which include six heifers (30%) and 14 she buffaloes (70%) based on symptoms such as protrusion of posterior vagina, cervix, and uterus through vulval lips, as well as discomfort, oedema, partially attached placental membranes, dirt, and other factors. Among twenty buffaloes, fourteen had prepartum prolapse, and six had postpartum prolapse. In addition, these animals were divided into four groups based on the severity of prolapsed genital mass.

1. Group-I: Prolapsed mass with mild oedema observed when the animal lied down (n=4) (Fig. 1)

2. Group-II: Prolapsed mass with moderate oedema observed when the animal exhibited straining for urination and defecation (n=5) (Fig. 2)

3. Group-III: Cervico-vaginal prolapse with moderate to severe oedema (n=5) (Fig. 3)

4. Group-IV: Prolapse of vagina, cervix and uterus with severe oedema (n=6) (Fig. 4)

Depending on the severity of prolapse with oedema, different treatment modalities (finely powdered sugar, POP IN spray®, ice cubes, and herbal PROLAPSE IN powder ®) were tried either in single or in combination on the above groups of the current study.

To avoid straining, all of the animals were given epidural analgesia with 5-6 ml of 2% Lignocaine hydrochloride (LOX^{R} 2%) in the sacro-coccygeal space, and the urinary bladder was emptied by lifting the prolapsed mass to the level of the ischial arch to straighten the urethra, followed by passing of IV infusion set to remove the urine from distended bladder. Dirt materials such as straw dust, grass awns and soil were manually removed from the prolapsed mass, and cleaned with 1% potassium permanganate solution. The exposed mucous membrane of the prolapsed mass was sprayed with 2% lignocaine spray and left for another two minutes. In group-I buffaloes, the prolapsed mass was reduced with the application of ice cubes followed by PROPLASE IN powder® (Cattle Remedies Pvt. Ltd.) preparation was mixed in liquid paraffin and applied over the mass. In group-II buffaloes, the prolapsed mass was initially applied with finely powdered sugar for 15 minutes and then washed with clean water

Fig. 1. Mild degree vaginal prolapse

Fig. 2. Prolapse with moderate edema

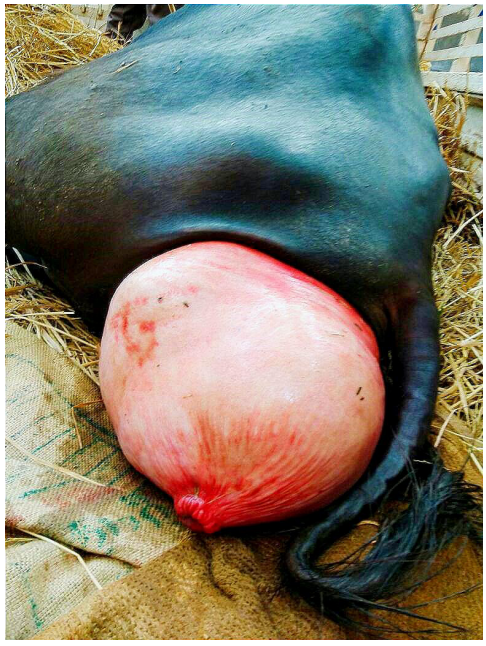

Fig. 3. Prolapse with moderate to severe edema

Fig. 4. Prolapse with severe edema

followed by application of PROLAPSE IN powder® (Cattle Remedies Pvt. Ltd.). In group-III buffaloes, the prolapsed mass was reduced with POP-IN spray® alone (Natural Remedies Pvt. Ltd.). In group-IV buffaloes, the prolapsed mass was reduced with ice cubes followed by POP-IN spray® (Natural Remedies Pvt. Ltd.) application. Apart from the above treatment in group-I and group-II animals, prolapsed mass was repositioned into normal anatomical position and retention was done with the help of a rope truss. However, in group III and IV animals, Buhner's sutures were applied to retain the prolapsed mass and to prevent further recurrence (Thangamani *et al*., 2018). Post operatively Inj. Streptopenicillin (5 gm) and Inj. Flunixin (1.1 mg/kg) were administered intramuscularly for four consecutive days. Regardless of the group, oral administration of Ostovet forte (100 ml, Intas Pharmaceutical Ltd) and Proctive bolus (2 boli) daily for three weeks were recommended. It was advised to increase the frequency of feeding in smaller quantities with regular exercise. In groups I and II buffaloes, the rope truss was removed after ten days, while in groups III and IV, Buhner's sutures were removed after 12 days.

The oedema of the prolapsed mass could be reduced by the use of different materials such as ice cubes (Anoop *et al.,* 2016), POP IN spray® (Tiwari *et al*., 2013), hypertonic solution (Arthur *et al.,* 2001 and Senthilkumar, 2014), cold water (Ahuja *et al.,* 2016), and Nolapse powder® (Ahuja *et al.,* 2016, Ghodasara *et al.,* 2014). The authors of the current study recognized that controlling and reducing the oedema of the prolapsed mass was the important critical step in the success of the treatment and consequently tested different treatment regimens either alone or in combination on the prolapsed mass and yielded effective results in controlling and reducing the oedema. Further, retention of prolapsed mass with rope truss in group I and II buffaloes and Buhner's suture technique in group III and IV buffaloes, both yielded satisfactory results, and these findings are in line with the studies conducted by Thangamani *et al.* (2018) and Hussaini *et al*. (2019). Furthermore, this study also reports that POP IN spray® alone on the prolapsed mass caused an immediate reduction in oedema with less post-obstetrical infection. In addition, genital prolapse commonly occurs from excessive relaxation of perineum, forced traction of the fetus, and faulty manual removal of the ovarian end of fetal membrane (Miesner and Anderson, 2008). Careful handling of prolapsed mass was a significant step involved for a better post-obstetrical recovery rate (Hasan *et al*., 2017). During the handling process, complications such as bladder herniation and intestinal prolapse (Prasad and Rajesh, 2014) might occur along with genital prolapse. However, contrary to the above studies, no such complications were recorded in the present study. Different treatment modalities have been tried in the present study based on the severity of oedema of the prolapsed organ, which finally yielded satisfactory results. Furthermore, all the buffaloes treated for different grades of prolapse recovered without further complications.

Pre and postpartum prolapse present a constant challenge to the field veterinarians, as it has a financial impact on the farmer. Therefore, the veterinarian treating the genital

prolapse should determine the time of onset of oedema and its nature and duration and treat the animal accordingly. Based on the findings of this study, it is concluded that depending on the severity of oedema, the planned use of various therapeutic regimens, either alone or in combination, could aid in the successful treatment of genital prolapse.

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