



THERAPEUTIC MANAGEMENT OF POSTPARTUM CERVICO-VAGINAL PROLAPSE IN A MURRAH BUFFALO

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Prolapse of genitalia is one of the common reproductive disorders in buffaloes and several other species. Cervico-vaginal prolapse is a maternal abnormality in buffalo observed most commonly during last 2 to 3 months of pregnancy but may occur after parturition and can be noticed by the protrusion of varying parts of vaginal wall and cervix through exposed vulva (Noakes *et al.*, 2009). Protrusion of complete cervix and vagina through vulva is a general condition in pluriparous cows although the exact cause of disorder has not been ascertained (Morrow, 1986). In some conditions, urinary bladder is trapped within the prolapsed part leading to further enlargement and complications (Youngquist and Threlfall, 2007). This is considered as an emergency condition and should be attended prior to unnecessary contamination followed by infection, too much edema, mucosal trauma and hemorrhages. In present study, a case of post-partum cervico-vaginal prolapse in a pluriparous 'Murrah' buffalo and its successful treatment is reported.

An eight-years old 'Murrah' buffalo in her 3rd parity with fair body condition weighing 400 kg was presented to the Teaching Veterinary Clinical Complex, Referral Veterinary Hospital, Faculty of Veterinary Sciences & Animal Husbandry, SKUAST-J, R.S. Pura, Jammu with the history of cervico-vaginal prolapsed 12 h following calving and expulsion of foetal membranes. Earlier the case was treated by a local veterinarian without success. The buffalo was standing with cervix and vagina hanging outside the vulva and severely inflamed, congested and swollen (Fig. 1). The overall condition of buffalo was good; however, the temperature, pulse and respiration rate were slightly above the average value (temperature: 38.3°C, pulse: 58 min⁻¹, respiration: 24 min⁻¹). The buffalo was restrained properly in standing position followed by posterior caudal epidural anesthesia with 4 mL lignocaine hydrochloride (2%) The inflamed and congested prolapsed mass was first cleaned with normal saline solution then with potassium permanganate solution (1:1000). The urinary bladder was gently emptied by elevating the prolapsed mass to the level of ischial arc and applying diffuse pressure on bladder surface. Remaining urine was drained out completely by catheterization of urinary bladder using foley catheter (No. 8). Application of ice pack was done to reduce the edema and size of prolapsed mass. Lignocaine jelly (2%) was applied locally on the prolapsed mass, elevated to the level of vulva with the help of an assistant and after that replaced by applying steady pressure initiating at the vaginal portion and gradually working towards the apex as per procedure explained by Noakes *et al.* (2009). After replacing prolapsed mass, Lorexane cream (Virbac India, gamma benzene hexachloride and proflavin hemisulphate with cetrimide) was applied on vaginal mucosa area as there were slight lacerations. Buhner's sutures were applied to vulva for retention and to prevent further recurrence of prolapsed (Fig. 2). The buffalo was treated with 3000 mL dextrose normal saline, 4000 mL normal saline solution and 450 mL Mifex (calcium magnesium borogluconate injection, Elanco India Pvt. Ltd.) intravenously. Then 20 mL Enrocin injection (Enrofloxacin, RFCL Ltd.), 10 mL Avilin Vet (chlorphenamine maleate, MSD Animal Health India) and 15 mL Melonex injection (Meloxicam, Intas Pharmaceuticals Ltd.) were administered intramuscularly. Injection Siquil (Triflupromazine, Zydus AHL) 5 mL was given intramuscularly on the day of treatment only to prevent straining. The owner was also suggested to



Fig. 1: Cervico-vaginal prolapse



Fig. 2: Buhner's suture

apply cream Lorexane on suture line with surgical gloves. On 8th day sutures were removed and no postpartum complication was reported during 10 days observation period.

Vaginal prolapse is generally a chronic, recurrent, hereditary disease and commonly related with hypocalcaemia or forceful fetal extraction (Anonymous, 2006). It is mostly observed during pregnancy, particularly beyond the 5th month of gestation and postpartum, too. The exposed cervico-vaginal mass is vulnerable to damage and possibly infection (Jackson, 2004). The urinary bladder may be contained within prolapsed vagina, resulting in occlusion of urethra and retention of urine (Fubini and Ducharme, 2004). The high level of estrogen during parturition may lead to greater relaxation of pelvic area and associated structures and the lower level of calcium can result in reduced vaginal and uterine muscle tone which predisposes the animal to cervico-vaginal prolapse (Roberts, 2004). Intravenous use of calcium borogluconate at completion of suture application helps to correct the hypocalcaemia occurring simultaneously in the majority of prolapsed cases (Bhattacharyya *et al.*, 2012). Buhner's technique is best method for retaining the replaced vagina (Roberts, 2004). The due attention must be paid at initial stages of cervico-vaginal prolapse. Otherwise, chronic and recurrent pre-partum cervico-vaginal prolapse turns into irreducible one. Therefore, genital prolapse is regarded as an emergency condition and should be managed before excessive edema, mucosal trauma, contamination, fatal haemorrhage, shock and complete prolapse of genitalia (Singh *et al.*, 2018).

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