THE SCIENCE WORLD
A Monthly e Magazine
ISSN:2583-2212
November 2024 Vol.4(11), 5116-5120
Case Study

Clinical Management and Case Study of Uterine and Vaginal Prolapse in Bovines

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https://doi.org/10.5281/zenodo.14173861

Abstract

Uterine and vaginal prolapse is a major cause of bovine reproductive problems. These prolapses can lead to acute inflammatory changes, including oedema, congestion, haemorrhage, mucous discharge and even necrosis of uterus which makes the repairing difficult and results in death of the animal mainly due to trauma and shock. Among various obstetrical problems in buffaloes the incidence of uterine prolapse is 42.9%. Mishra et al. (1997) reported prolapse of genitalia was 98.40% in pluriparous and 82.50% in stall fed buffaloes, with a remark that negligence in treatment of prolapse may result in permanent damage to reproductive organs.

Prolapse can be prepartum or post-partum in bovines and they need a good managemental practice and treatment for successful outcome and survival of dam.

Introduction

Uterine and Vaginal prolapse occurs when pelvic floor muscles and ligaments stretch and weaken until they no longer provide enough support . Arthur et al. (1999) reported uterine prolapse as a common problem during their last gestational period.

Based on the type of prolapse they were randomly grouped into four groups as vaginal, cervico-vaginal, uterine and recto-vaginal prolapse

Causes of uterine and vaginal prolapse in bovines include

- Fat or over condition in older cows
- Calving twins or triplets
- Dystocia (difficult calving)
- Tenesmus (straining during parturition)

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- Hypocalcaemia (low blood calcium levels)
- Prior vaginal prolapse
- Trauma during calving
- Selenium deficiency
- Retained foetal membranes
- Genetic predisposition
- High estrogen and relaxin levels

Case History and Clinical Observation:

Two cases of a 10- & 12-year-old MURRAH buffalo in their trimester weighing about 450kg and 470kg both were reported at the Veterinary Hospital, Mouje Sangaon, Taluka kagal. rectal temperature was 102.8°F and 103.2°F The buffalo showed discomfort signs drop in milk production. On clinical examination, the animal being recumbent or standing with the uterus hanging up to the hock joint. The uterus with caruncles was exposed and attached with foetal membrane (Fig 1). The prolapsed mass was oedematous and touching on the ground. The fetal membranes or mucous membranes of the uterus are exposed and usually soiled with faeces, straws, dirt, and blood clots.

Fig 1: Prolapsed uterus with retained foetal membranes

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CASE 2:

The other case was of vaginal prolapse in the 12year old murrah buffalo weighing 470kg with a rectal temperature of 103.2°F was also reported at the same place. on clinical observation the buffalo was presented with a protruding vagina one month after parturition. A yellowish mucoid discharge was observed drooling from the vulva. The temperature, pulse and respiratory rates were all within the reference values.

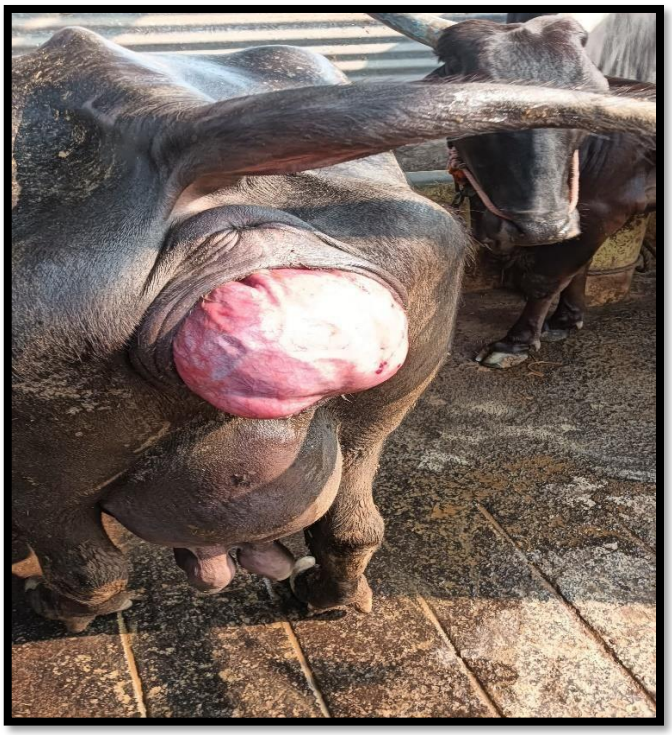

Fig 2: The perineum showing distended vulva with bulging vagina

Treatment:

CASE 1: (UTERINE PROLAPSE)

Farmers were instructed to wrap the prolapsed mass in a large clean cloth and to keep pouring cold water on it at frequent intervals in order to prevent drying or contamination of prolapsed mass and fly infestation. The animals were administered 500 ml of Calcium borogluconate. Caudal epidural anaesthesia was induced with 5ml of 2% Lignocaine HCl to relax the uterus

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and to minimize the straining. The everted uterus was washed with 1:1000 solution of Potassium Permanganate (KMnO4) to remove the debris. The everted uterus was repositioned to its normal anatomical position by applying gentle pressure with fisted hand from the base and continuing up to the apex with help of palm of the other hand. Then Buhner's suture was applied on the vulva with a local sterilized thread leaving four finger spaces between vulvar lips and a slip knot was placed at the ventral commissure of the vulva. Inj. Pronac 30mg I/M is used for pain relief. Inj. Duraprogen 3ml I/M For low conception rate, threatened abortion, and early embryonic mortality.

Oral Bol. Proactive to protect from partial prolapse of uterus and vagina during pregnancy and also nourishes the foetus . Inj. Unizif 20mg I/M for Inflammation and pyrexia associated with Metritis, Acute bovine mastitis. The buffalo was recovered successfully without any complications.

CASE 2 : (VAGINAL PROLAPSE)

An 18G needle was inserted into the sacrococcygeal space with 5ml of lignocaine (Fig.2). The tail was then observed for flaccid sign and a reduction in the anal tone. The retention of the vagina was performed after the onset of paralysis. The perineal area was cleaned with normal saline and the surrounding skin was disinfected with chlorohexidine. The prolapse was then gently pushed back into the pelvic cavity. Buhners suture was applied around vulva area in which two horizontal incisions were made just below the ventral and dorsal commissures of the vulva. The suture tape was then tied using quick release knot. Flunixinmeglumine (1.1mg/kg), oxytetracycline (20mg/kg), multivitamin (20ml) and Theracalcium (50ml) were administered intramuscularly.

Discussion and Conclusions:

Vaginal and uterine prolapse are among the most common conditions after parturition in farm animals. This is because immediately before and after parturition, there is a sustained straining by the animal which predisposes to these conditions. Uterine prolapse is an obstetrical problem, which adversely affects productive and reproductive performance of buffaloes by affecting postpartum return to oestrus, conception rate and calving interval. Uterine prolapse in buffaloes usually occur within 2-24 hours of calving. The uterine prolapse could be managed by epidural anaesthesia as it reduces the straining and the present observation implies the condition. The complete reduction of uterine prolapse could be achieved with proper management and unsuccessful cases may result in continuous straining and necrosis . To avoid

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the recurrence of

uterine prolapse, different kinds of vulvar sutures or a rope truss can be used. Buhner's suture technique is used.

Breed predisposition, dietary deficiencies of calcium and excess estrogen in diet have been incriminated in causing vaginal prolapse in large animals. Calcium is known to play a vital role in the pathogenesis of vaginal prolapse since it is an important mineral required for muscle contraction. Therefore, a decline in calcium results in flaccidity of the muscle and a loss in tone. The case was easily managed by application of Buhner's suture as described. Usually, grade I and II vaginal prolapse are easier to manage than grade III and IV prolapse, due to the lesser severity and high chance of success. However, untreated impending uterine infection is a common complication of vaginal prolapse and left unaddressed may cause severe metritis predisposing to conception failure and infertility [4,5]. We thus sought out to correct these deficits by administration of systemic antibiotics, analgesic, multivitamin and calcium injection. The prognosis was good as there was a recession of the prolapse and cessation of exudation from the vulva.

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