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Successful therapeutic management of cervico vaginal prolapse using Minchev's technique in Jersey cow: A case study

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Abstract

A jersey cow aged around 5 years was presented with the history of the repeated vaginal prolapse and parturated 3 months back. The animal had delivered the calf normally without any complication. The prolapse was corrected twice using buhner's suture technique, but failed to retain the prolapsed mass in the normal position. On the third attempt, the vaginal retention was done by minchev's technique using plastic buttons, the stay sutures were placed for the period of 25 days. Even after the suture removal there was no repeated occurrence of the prolapse and no deviation in normal urination and defecation. In conclusion that minchev's method is one of the cost effective technique for the recurrent cervico vaginal prolapse and after complete post operative care and good management the animal was recovered uneventfully.

Keywords: Cervico vaginal prolapse, Minchev's technique, plastic button

Introduction

Cervico vaginal prolapse is the eversion of the vaginal portions involving floor, lateral walls and roof of the vagina along with the cervix from the vulvar commissure protrude outside and inner layers remains out (Whittier, 2007) [7]. As reported by Baruthi *et al.* (2020) [2]. CVP is the one of the common obstetrical problem which affects the reproductive efficiency and productivity of the animals by affecting the postpartum return to estrous, conception rate and calving interval. The exact factors for CVP was not clear, but increase in level of circulating estrogen which brings relaxation of the pelvic ligaments by enhancing the level of relaxin and intra abdominal pressure increased by the gravid uterus may predispose to the CVP (Wolfe, 2009; Sharma *et al.*, 2017) [8, 6]. Lesser known factors are intra-abdominal fat accumulation, rumen distension, larger fetus, twins and hilly habitat (Balamurugan *et al.*, 2018) [1]. Dietary factors such as hypocalcemia, food containing estrogenic substance (clover, soybean meals etc.) are also associated with this disorder (Parikh *et al.*, 2018) [5]. This study highlights the successful management of cervico vaginal prolapse using minchev's technique of correction.

Case History and Clinical Examination

A five year old pluriparous jersey cow was attended at ilthore village of devanahalli taluk with the history of parturition three months back and straining was noticed while passing of urine and dung. During the straining the prolapsed mass has come out twice and replaced in the vaginal cavity using buhner's suture pattern, but the occurrence of the condition was repeated after one month of suture removal. Upon physical examination the cow was apparently healthy in condition and the prolapsed mass was hanging from the vulva (Fig 1). On clinical examination and physiological examination temperature, heart rate, pulse, respiration was within the normal range. On per rectal examination the uterus was in normal position and prolapse of the cervix and vagina along with the bladder was observed. The vaginal epithelium was good in condition and no evidence of any dead tissues or lacerations. Based on the history and clinical examination the case was diagnosed as the cervico vaginal prolapse. With the consent of the owner, decided to go for surgical correction using plastic buttons with minchev's technique.

Treatment and Discussion

The cow was induced with caudal epidural anesthesia using 2% lignocaine hydrochloride (6

ml). Epidural anaesthesia is mandatory before handling the prolapse, as it prevents the tenesmus and straining during the process of handling by providing analgesia to the perineal region (Noakes *et al.*, 2009) [4]. The prolapsed mass was cleaned completely with potassium permanganate solution and normal saline. The mass was replaced into the normal anatomical position with sufficient lubrication using liquid paraffin. The umbilical tape was passed through the roof of the anterior vagina, sacrosiatic ligament skin in the gluteal area by avoiding sciatic nerve, pudendal artery and rectum. Stay suture were placed over the skin by using plastic buttons at 10'o clock and 2'o clock position (fig 2). After complete reposition the animal was treated with the fluid therapy for three days and inj. Ceftriaxone for subsequent five day at the dose rate of 10 mg/kg body weight. The animal was maintained in a good management practices and supportive therapy was done continuously till the suture removal along with the wound dressing using betadine 5%. The animal was recovered successfully and sutures were removed after 25 days. Unlike in our study, the modified mintchews method was followed by Ezakial *et al.*, 2018 [3] in post partum gir cow to control the chronic cervico vaginal prolapse. The post operative care and management is must to avoid the secondary bacterial infection, pain and inflammation for the animal as plastic buttons act as a foreign material.



Fig 1: Cervico vaginal prolapse mass



Fig 2: Stay suture using plastic buttons

management technique to control the recurrent cervico vaginal prolapse in cattle. As the plastic buttons acts as a foreign body, post operative management is must in order to avoid further septicemia and continues wound dressing and supportive therapy is required for successful recovery.

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Conclusion

Dietary management of the feeds containing the estrogen and imbalance in the dietary factors which brings the cervico vaginal prolapse after the parturition (postpartum period). Mincheves method is one of the cost effective therapeutic