APPLIED VETERINARY RESEARCH

CASE REPORT
Published Online: April 11, 2022
https://doi.org/10.31893/avr.2022006

Management of chronic recurrent prepartum cervico-vaginal prolapse with multiple lacerations in a crossbred cow

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Abstract Prepartum prolapse of vagina or vagina along with cervix is an obstetrical emergency arising as a result of number of factors, the most common being hormonal imbalances. Chronic cervicovaginal prolapse may have a genetic trend. In this report we received an emergency at our university referral hospital with a history of recurrent prolapse mass appearing through vulva during a late gestation in a cow. Prolapse mass was reduced, reposed and retained under epidural anesthesia. All the lacerations were sutured with catgut and Buhner's suture, using infusion set, was applied on vulvar commissures for a period of 10 days. Also, the supportive therapy was advised. The present clinical article reports successful management of chronic recurrent pre-partum prolapse with lacerations in a cow.

Keywords: Buhner suture, cervico-vaginal prolapse, infusion set, lacerations, recurrent

1. Introduction

Prepartum cervicovaginal prolapse is seen occasionally in cows during advanced pregnancy (Hasan et al 2017). The frequent cause is hormonal followed by dietary and managemental. Genetic predisposition although rare, leads to recurrence and failure of response to treatments (Patra et al 2014). The lacerations due to exposed mass injuries in contact with hard pointed objects lead to recurrence and failure of proper repositioning. The present case was presented with exposed mass out of the vulva with visible lacerations progressing to necrotic changes. This case was managed with suturing lacerations and repositioning under epidural anesthesia followed by Buhner's retention suture. There was uneventful recovery as the animal calved normally.

2. Case history and observation

The pregnant animal in second parity and advanced gestation was presented at the Veterinary Clinical Complex of the Faculty of Veterinary Sciences and Animal Husbandry with the complaint of recurrent football-sized mass exposure through the vulva for the last one month. The animal shows reluctance to feed and water intake. On examination the exposed mass contains prolapsed vagina along with cervix. Cervical seal was intact and the mass was contaminated with dirt particles and grass. Multiple lacerations, two being major were observed on ventral side of the mass.

3. Treatment and discussion

First of all, the prolapsed mas (Figure 1) was washed with dilute potassium permanganate (PP) solution in cold water (1% PP Solution) under epidural anaesthesia with 2% Lignocain hydrochloride (Lox 2%) in a standing position. All the adhered dirt and grass particles were picked up using sterile forceps from the tissue. The bladder was emptied partially by lifting the mass and urine was fully drained by passing a sterilized infusion set pipe through the urethra into the bladder. In this way both oedema and the size of the exposed mass were reduced. Lignocaine gelly (Lox 2%) and Soframycin ointment were combined in 2:1 ratio and applied locally on the mass. The major lacerations on the mass were sutured with catgut No. 1 using a simple continuous suture pattern. The reduced mass was reposed by putting a hand with a closed fist at the cervix site and gently pushing the mass towards pelvic brim. Once the mass was reposed to the maximum the animal became stable (Figure 2). Since it was a delayed case with lacerations on mass, it was decided to apply conventional Buhner suture using an infusion set as suture material subcutaneously on the vulva (Figure 3). To maintain tonicity of mass injectable calcium along with vitamin D

(Inj. Cal D- 12, 10ml, I.M. for five days) and to prevent allergic reactions, Phineramine maleate (Inj. Avil 10 ml, I.M. for three days) and antibiotic enrofloxacin (Inj. Floxidin 10 ml, I.M. for three days) were prescribed. The Buhner sutures were removed after 10 days on follow up, and the animal calved normally with no further complaint.

Cervico-vaginal prolapse in cattle is a major reproductive emergency that is not very common (Ahmed et al 2005) but needs a prompt management to save the life of the dam and fetus. It is often characterized by excessive oedema, mucosal trauma, contamination and haemorrhages, making its prognosis grave (Miesner and Anderson, 2008). Vaginal prolapse in cows is sometimes a chronic hereditary pre-partum disease (Anonymous, 2006) and hence remains a challenge for farmers and veterinarians. This disorder is more annoying during advanced pregnancy of animals, particularly during the last few weeks of gestation as in the present case. If unattended, lacerations in prolapsed mass always aggravate the condition, and such delayed cases decrease future production and fertility. The present case had almost all the above complications and was managed by suturing lacerations followed by Buhner's suture on the vulva. Further the owner was advised to keep the animal's hindquarters raised till calving. This was suggested to prevent the recurrence of prolapse as reported by Batacharia et al (2012).

Figure 1 Prolapse mass presented in the cow.

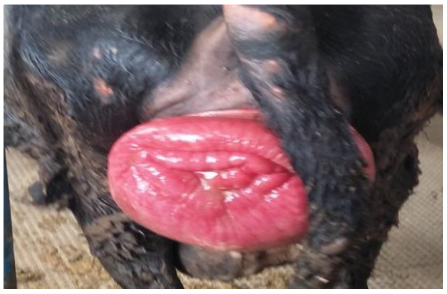

Figure 2 Mass cleaned, reduced, and lacerations sutured.

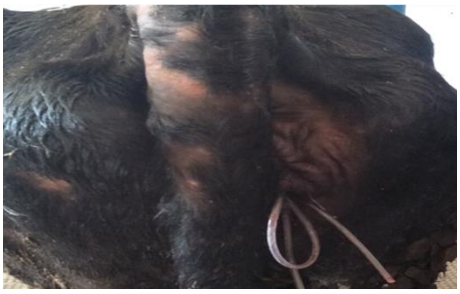

Figure 3 Mass retained with Buhner suture.

4. Conclusion

The most annoying conditions of cervico-vaginal prolapse with multiple lacerations on the mass in a late gestational cow can be successfully managed by suturing lacerations followed by reduction, reposition and retention techniques under epidural anaesthesia.

Conflict of Interest

There was no conflict of interest.

Funding

There was no funding from any agency.

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