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Uterine Prolapse in a Jersey-Red Sindhi Cross Cow.

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ABSTRACT

Uterine prolapse is basically the eversion of the uterus whereby it is turned inside out from its original location. Cows it mostly occurs within a few hours after calving. The condition is usually associated with hypocalcemia, which results in a lack of uterine tone and delayed cervical involution. A case of uterine prolapse in 5 years old Jersey- Red Sindhi crossbred cow was presented to Department of Veterinary Gynecology and Obstetrics, Veterinary College, and Research Institute, Namakkal. India. The uterine prolapse was replaced to the normal position under epidural anesthesia, lubricated with cetrimide cream and retention made through Buhners technique. No recurrence noticed for the next 3 days. Buhners suture removed after a week. Uterine prolapsed is an emergency situation and it has to be given professional assistance as soon as possible to enhance the prognosis. Proper reduction, reposition, and retention are crucial to prevent recurrence.

Keywords: Uterine prolapse, Gynecology, Buhners technique, Epidural anesthesia

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INTRODUCTION

A third party Jersey-Red Sindhi crossbred cow aged 5 years old, weighing 330 kg was presented to the Namakkal College and Research Institute Hospital. A normal male calf was born before 3 hours. Upon physical examination, it had a temperature of 38.9°C, heart rate 70 beats/min and respiratory rate of 30. It had a body condition score of 2.5 out of 5 with a vaccination and de-worming status not up to date. The ocular mucous membrane was pinkish and the prolapsed mass was covered in solid, dust and blood clots. It was total uterine prolapsed with the fetal membrane still attached to it. There were neither necrotic tissues nor edema. The cow was 5% dehydrated. Based on the above, the final diagnosis was uterine prolapsed.

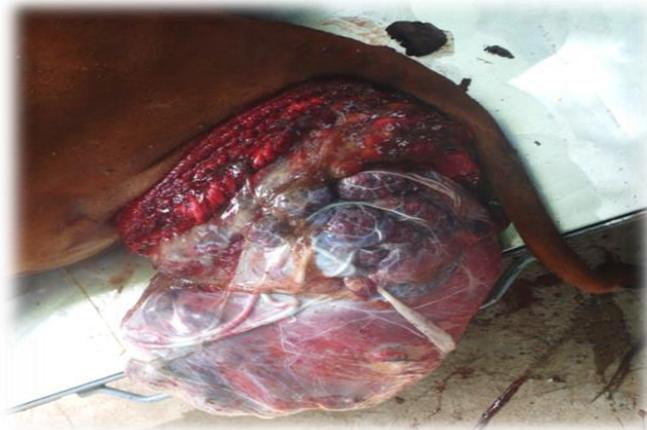


Figure 1: Prolapsed Mass Covered in Soil, Blood Clots, and Dust. Non-necrotic and Non-edematous.

Clinical Management

Cow was given 5ml of 2% Lidocaine before further manipulation of the prolapsed to desensitize the perineal region. The urethral orifice was then located to void out the urine from the distended bladder using a sterile metal canula.

As the placenta was still attached, a careful detachment of the cotyledons from the caruncles was done very gently. Next, the mass was thoroughly rinsed with 1% potassium permanganate solution as an astringent and to remove all the gross dirt too. Cold water was then used to wash the mass and immediately the uterus began to contract rapidly. This was followed by application of the cetrimide cream which is a mixture of quaternary ammonium salts including cetrimonium bromide on the mass which acts as a lubricant as well as an antiseptic. The mass then reduced using both hands with moderate force pushed through the vagina. The uterine body was first pushed in followed by the uterine horns.



Figure 2: Urine Voidance using Sterile Metal Canula



Figure 3: Reduction of Prolapsed Uterus

A Buhner's Suture with umbilical tape was placed on the vulva to hold the uterus in position. The animal was then treated with oxytocin 20 I.U intramuscularly, Streptopenicillin consisting streptomycin, penicillin, and penicillin G was given at 5g/ adult cow for 3 days, Meloxicam at 0.2mg/kg, I.M once daily for 5 days, Dexamethasone 0.1mg/kg/adult I.M once and Calcium boro gluconate 450ml slow I.V over 10 minutes. The Buhner's suture was removed one week later. Cow was very wobbly at the end of the procedure however 5 hours later, colostrum could be milked from her and she was walking about steadily with no recurrence of prolapsed for the next 3 days under observation.



Figure 4: Buhners Suture Applied on the Vulva

DISCUSSION

Prolapse of the uterus normally occurs during the third stage of labor at a time when the fetus has been expelled and the fetal cotyledons have separated from the maternal caruncles [3]. In this, the fetus was expelled 3 hours before presentation to the hospital and fetal membrane was still attached. The predisposing factors to such conditions would be forced extraction which is incriminated an etiological factor [3]. Besides that, hypocalcemia results in myometrial fatigue and delays the cervical involution [4] which leads the uterus to be everted out. Another predisposing factor would be retained fetal membrane which is caused by the decrease in collagenase enzyme initiating the eversion of the gravid horn [5].

The principles of treating would include rinsing, reposition, reduction and retention. In this case, potassium permanganate was chosen as an astringent. However, according to Bhattacharya, (2012) ice pack and sterile Vaseline as be used for lubrication [6]. K-Y Jelly and J-Lube could also be used as a lubricant to aid in the manipulation of the prolapsed mass [7]. Reduction of the mass can be done with cold water as in this case or with topical application of sugar or salt solution which aids with the reduction of edema [8]. In terms of

Retention, 3-4 liters of clean warm water can be filled into the uterus by gravity and siphoned out immediately and ensured that the uterine horns are stretched out well [9]. Buhner's Technique could also be applied using sterile infusion tubing as suture material [6]. Amputation would be the last resort when the gross injury is severe and resolution is clearly impossible [9].

Uterine Prolapse can be complicated with few factors. In this case, no complications were seen however, death in prolapsed uterus cases is usually due to internal haemorrhage consequent to the weight of the everted organ having torn the mesovarium and ovarian artery [6]. Other complications include possible presence of a distended bladder within the prolapsed uterine body or even prolapsed visceral organs. In such cases, catheterization should follow and it should be done first [6].

Prognosis can be evaluated through 3 major factors. The injuries to the organs involved, Duration of the condition and also the type of cases presented. Professional assistance in an hour or two after its occurrence would increase the prognosis. Any cases attended above 12 hours would reduce the prognosis with the increase in time. The prolapsed mass may vary from slight intermittent protrusion of the floor of the vagina to a permanent protrusion of the vagina and cervix. Prognosis is favorable for uncomplicated cases where there has been no serious damage to the uterus. In one study a 2-week survival rate of 72.4 % was found with other studies finding survival rate of 73.5 % and 80% respectively [10, 11].

CONCLUSION

Uterine prolapsed is an emergency situation and it has to be given professional assistance as soon as possible to enhance the prognosis. Proper reduction, reposition, and retention are crucial to prevent recurrence.

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