

Pre and post partum prolapse in a crossbred Jersey cow: A case report

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Abstract: A pluriparous crossbred Jersey cow, in its advance stage of gestation (8 months) was presented with severe straining and some part of vagina and cervix was exposed outside the perineum. The cow was having same complications in her previous two gestations. The cow was treated with intravenous calcium borogluconate injection 500 ml slowly and D10% followed by parental antibiotic oxytetracycline (60 ml) and chlorpheniramine maleate (10 mg/ml). The prolapsed mass was pushed back after washing with KMNO₄ and was set in proper place in the pelvic cavity. As the cow was having frequent recurrence of pre partum prolapse, two days after; the delivery was done through caesarean section. Even after delivery the cow was straining severely and uterus was everted and prolapsed out of vulva. The straining could not cease and the animal went in lateral recumbency and finally died. Thus, it was confirmed that pre and post cervico-vaginal prolapse in the same cow is serious and fatal condition.

Keywords: Crossbred Jersey, cow, cervico-vaginal prolapse, Caesarean section

INTRODUCTION

Eversion and prolapse of the vagina and cervix is a problem frequently found in both cattle and sheep. Most commonly the problem presents itself in mature females during their last trimester of pregnancy. Although vaginal prolapse occurs mainly in pregnant cattle and sheep, the condition is also seen in non pregnant ewes and heifers[1]. It is regarded as an emergency condition and should be managed before excessive edema, mucosal trauma, contamination and fatal hemorrhage lead to a grave prognosis [2]. The hormonal changes that occur during this last trimester of pregnancy, especially the increase of estrogen and the production of relax in, cause a relaxation of the pelvic ligaments and surrounding soft tissue structures [3]. The combination of this tissue relaxation with the increased intra-abdominal pressure caused by the pregnant uterus is considered as first and foremost predispositioning factor for vaginal prolapse [1]. High estrogen content present in maize and barley resulting in high incidence rates of cervico-vaginal prolapse[4]. Mechanical factors such as the increasing intra-abdominal pressure of late gestation and gravity acting through the sloping byre floor when animals were tethered were considered to be significant in causing this condition[5]. A various number of dietary factors such as hypocalcaemia and the grazing on pastures with an abundance of clover have also been linked to the disorder[2]. In addition to this, it is assumed that the occurrence of prolapse has a genetic foundation in both cattle and sheep[1].

Caesarean operation is one of the most common surgical procedures performed by the Veterinarians and is considered as a routine obstetric technique because of its high maternal and fetal survival rates[6,7]. Pre and post partum cervico-vaginal prolapse is one of the major and most common obstetrical disorders that cause reproductive failure or infertility thereby lead to economic losses. It leads to serious and a fatal gynaecology malady in cattle herds especially during calving season. Success of treatment depends on the type of case, the duration of the case, the degree of damage and contamination. Therefore, the present study was undertaken to study the pre and post partum cervico-vaginal prolapse in Cross bred Jersey cow.

CASE REPORT

A Pluriparous crossbred Jersey cow, about 8 years of age at Cattle Breeding Farm, Nagpur Veterinary College, Nagpur was attended. The cow had almost completed her gestation period. She started straining and some portion of vagina and cervix was exposed outside the perineum. The cow could not pass urine due to pre partum prolapse and she was having the same complications in her previous two gestations. The animal was apparently healthy but when she sit on the floor the whole cervix and vagina came out from perineum. However, cow was strongly straining resulted in the prolapse of cervix and vagina and finally the animal underwent in lateral recumbency. Subsequently, other symptoms such as increased in body temperature (102.7⁰C), in appetite and absence of urination were observed.



Fig 1: cervico-vaginal prolapse in Crossbred Jersey cow

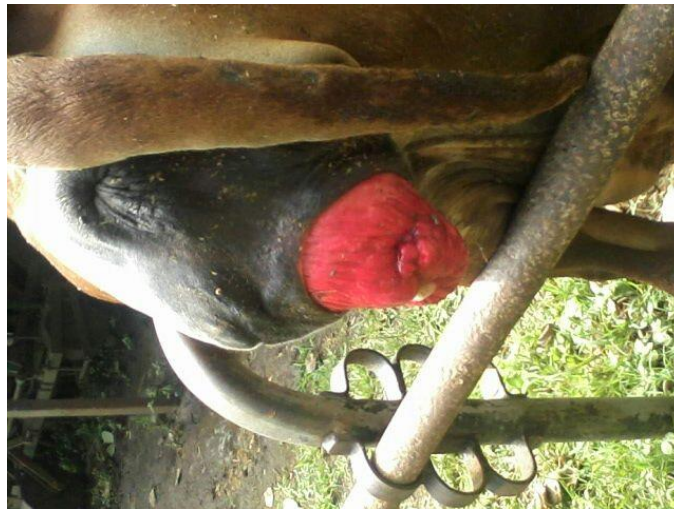


Fig 2: Cervico-vaginal prolapse in crossbred Jersey bull in standing condition

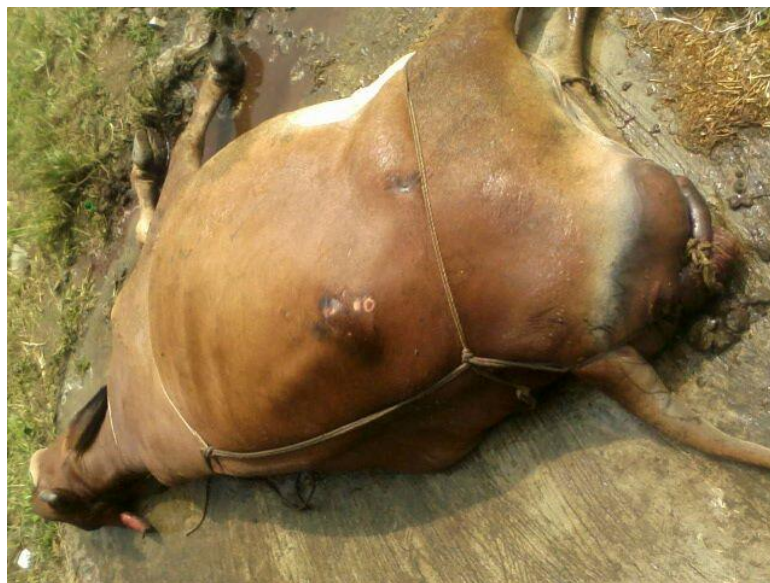


Fig 3: handling of cervico-vaginal prolapse by rope truss in crossbred Jersey bull

Treatment

On the day of arrival, after clinical examination, necessary hygienic measures, (i.e. washing the prolapsed mass with Potassium Permanganate) were taken and was given epidural anaesthesia using 5 ml of lignocaine (2%) in between the first and the second coccygeal vertebrate and the prolapse mass was gently massaged back into the pelvic cavity. The rope truss was also used to control the prolapse mass. The cow was treated with intravenous calcium borogluconate injection 500 ml slowly and D10% followed by parental antibiotic oxytetracycline (60 ml), chlorpheniramine maleate (10 mg/ml), Meloxicam @ 1ml/kg body weight and vitamin-B complex injection (Tribivet -10 ml). Cervix failed to dilate due to fibrosis of cervix. The situation worsened after twenty-four hours; the patient began straining more forcefully and the prolapsed vagina and cervix out of pelvic cavity.

Over the course of time the problem did not diminish. The cow was having frequent recurrence of pre partum prolapse and after two days, the delivery was done through caesarean section. The animal was properly restrained in left lateral recumbency and the flank was anaesthetized by local linear infiltration with 2% lignocaine hydrochloride. For linear infiltration, the anesthetic agent is first infiltrated sub-cutaneously in both directions at the point of prick followed by administration in the musculature. A wide surgical field was prepared by clipping the entire flank in between the transverse processes of dorsally, to just above the milk vein ventrally and from the last rib to the hind leg, level of the tuber coxae. The operated site was cleaned by beta dine solution followed by surgical spirit and surgical drapes were applied on the operation site. When caesarean section was performed in lateral recumbency, the line of incision is often paramedian, parallel to the milk vein. After this uterus was exposed to remove the fetus. A calf was delivered by gentle traction through the incision made on the uterus. The calf was dead and edematous. Care was taken to avoid incision on the caruncle as it could cause profuse bleeding. Placenta was removed after delivery of fetus. The uterus was properly cleaned with sterile gauge and normal saline solution and put back to its position. The uterus is sutured by chromic cat gut no.3 in continuous lambert in single layer. After stitching, the uterus was thoroughly cleaned with sterile normal saline solution and put back to its position. Water soluble antibiotic dicrysticin-S 2.5g (Procaine penicillin G15 lac, Penicillin G sodium 5lac, Streptomycin sulphate 2.5g) was infused into the peritoneum before its closure. After completion of the operation, the prolapsed mass was replaced into its normal position. The antibiotics and other supportive treatments were done. Even after delivery cow was severely straining and uterus was everted and prolapsed out of vulva. The straining was again controlled by providing caudal epidural anaesthesia using 5 ml injection of 2% lignocaine. The

prolapsed mass was cleaned with KMNO_4 solution and reposed into its original position in pelvis with gradual force. After three to four days of struggle the cow went in lateral recumbency and finally died.

DISCUSSION

Pre and post partum prolapse in cows is often a chronic and recurrent disease. Cervico-vaginal prolapse is a very painful and serious condition due to which most of the animals cannot remain in standing condition for a period of time. In addition to this, it is assumed that the occurrence of prolapse has a genetic foundation in both cattle and sheep [1]. Genital prolapse is a major reproductive disorder in cattle and buffaloes[8].

CONCLUSION

Thus, from this study it concluded that pre and post cervico-vaginal prolapse in the same cow is serious and fatal condition. Crossbred Jersey cow is more susceptible to this condition. Further study is required regarding their susceptibility.

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