Short Communication

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Management of Uterine Torsion and Incomplete Cervical Dilatation in A Cross Bred Cow

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ABSTRACT

A cross-bred cow presented at a referral hospital of Veterinary Clinical Complex with symptoms of straining and colic associated with uterine torsion and its management with Sharma's method of detorsion followed by medical intervention for cervical dilation is reported.

Key words: Dystocia, incomplete cervical dilatation, uterine torsion.

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INTRODUCTION

Uterine torsion, an evident cause of dystocia in bovines has an incidence of 4–28% (Laven and Howe, 2005). The condition usually involves twisting of the gravid uterine horn on its longitudinal axis (Purohit *et al.,* 2011). It occurs before the onset or during the late first stage of parturition as the cervix is partially or completely dilated (Nanda and Sharma, 1986). The condition is rarely encountered during the early second stage of parturition (Noakes *et al.,* 2001). The maternal and fetal destabilizing factors behind the occurrence of uterine torsion are not well understood. However, weak broad ligament musculature, lower tone of uterine muscles, sudden movements of dam and the foetus predispose an advanced pregnant uterus to uterine torsion (Ghuman, 2010). In the present case, a cow presented showed low amplitude intermittent abdominal straining and discomfort. Per-vaginal followed by per rectal examination revealed post-cervical right-sided uterine torsion to an extent of around 180°.

CASE HISTORY AND OBSERVATIONS

A Cross-bred cow near term was presented to the referral veterinary hospital, Veterinary Clinical Complex, at

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the Sher-e-Kashmir University of Agricultural Sciences and Technology, with the history of abdominal straining, discomfort with colicky signs and inappetence for the past 6 hours. There was sinking of the lumbosacral spine along with an elevated tail head. Per-vaginal examination revealed Post cervical uterine torsion, while right-sided uterine torsion to the tune of 180° was confirmed by per rectal examination.

TREATMENT AND DISCUSSION

Based on clinical findings, it was decided to roll the animal using Sharma's method of detorsion. Reuff's method of casting was employed for casting the animal on it's right lateral recumbency. Forelimbs and hind limbs were tied separately as described by the above mentioned method of detorsion. The wooden plank was put on flank region for fixation of fetus in utero (Figure 1). The cow was slowly rolled in the right direction by grasping head separately. After two rolling attempts, prevaginal examination revealed complete detorsion and the cervix could be palpated. Unlike in majority of cases, cervical dilatation in the present case was not commenced. Fetal reflexes could be observed through per-vaginal and per-rectal examinations. Hence, it was decided to give prostaglandin (Pragma, 2ml, i.m., Intas pharmaceuticals, India) in combination with valethamate bromide (Epidosin Vet, 8ml, i.m., Cargill, India) for cervical relaxation. Dexamethasone (Dexona, 5ml, i.m.,) was also used to aid in dilatation and parturition. Intramuscular injection of Enrofloxacin (Inj. Flobac SA 10 ml im x 3 days), Flunixin meglumine(inj megludyne, 8ml i.m., x 3 days) and Chlorpheniramine maleate(Avil 10ml i.m., x 2 days) was suggested to prevent any complication of the uterus. 18 hours following treatment, parturition commenced with full cervical dilation. A gentle massage of the cervix, manual rupture of the amniotic sac and gentle traction helped in the quick delivery of a live female calf. The cow was treated immediately with four Furea pessaries (Nitrofurazone and urea) placed inside the uterus to avert infection. This was followed by slow intravenous infusion of calcium borogluconate (Inj. Mifex 500ml, Novartis, India) for increasing muscular tone and intramuscular Oxytocin (Inj. Pitocin 20 IU to hasten involution and prevent uterine prolapse. Above antibiotic and anti-inflammatory preparations were suggested to continue as indicated.

As observed in the present case, uterine torsion of 90 to 180 degrees can be present during the last few months of gestation without any symptoms and only become evident at the time of parturition. Rotations of 45 to 90 degrees are frequently observed in rectal examination pain and they often appear to resolve on or before parturition. A torsion of more than 180 degrees to a full turn (360^0) may lead to complete closure of the birth canal and obstruction of the blood supply to the uterus, resulting in congestion, oedema, shock, fetal death and in advance cases gangrene of the uterus (Roberts, 1971). The most commonly encountered uterine torsion falls into moderate degree category (Ruban *et al.,* 2021). The most commonly used techniques are per-vaginal rotation of fetus, rolling of the dam, Schaffer's method of rolling and caesarean section. Rolling the cow has been reported to be successful in 34% to 100% of cases (Sloss and Dufty, 1980; Ruban *et al.,* 2021). Shrama's method of detorsion has already been reported to be more effective than Schaffer's method, owing to its peculiarity that we put an extra weight on the plank to help in better fixation of fetus.

The symptoms of uterine torsion in cow prior to parturition may not be evident in mild cases (torsion of 45^0 to 90^0 or even 180^0). In severe cases (torsion $>180^0$) definite clinical symptoms such as abdominal pain, restlessness, anorexia, constipation, lack of rumination, rapid pulse, treading and tail twitching are observed. The present case, however, could not display all the signs of torsion, but the apprehension of the owner allowed him to present the case to our hospital and the case was timely diagnosed, which might be responsible for its uneventful recovery.

A

A: Casting of animal and fixation of fetus with plank

B

B: Rolling the animal while putting pressure on the plank

Fig.1: Modified Schaffer's (Sharma's) method of detorsion in cow

CONCLUSIONS

In conclusion, a cow with mild signs of uterine torsion was successfully managed to deliver a calf, followed by uneventful recovery of dam using Sharma's method of detorsion and induced cervical dilatation.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

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