

SUCCESSFUL MANAGEMENT OF PRE PARTUM CERVICO- VAGINAL PROLAPSE CONCURRENT WITH DYSTOCIA IN CATTLE: A CASE REPORT

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Abstract: A three year old cross bred cow in first parity was brought to the VGO wing of Referral Veterinary Polyclinic, I.V.R.I. (U.P.) with the history of full term gestation, unproductive straining and severe degree CVP for past 72 hrs. Per-vaginal examination revealed that 1 finger cervical dilation whereas per rectal examination revealed the presence of foetus in anterior presentation and dorsosacral position. The handling of the presented case, obstetrical correction, its post-delivery care and obstetrical management is discussed in the present communication.

Keywords: Cervico-vaginal prolapsed, Dystocia, Incomplete cervical dilation.

INTRODUCTION

Cervico-vaginal prolapse usually involve protrusion of the portion of the floor, lateral walls and roof of vagina through vulva along with the cervix and uterus, moving caudally (Roberts 1971). It is a common obstetrical problem which adversely affects productive and reproductive performance by affecting postpartum return to estrus, conception rate and calving interval. Many instances CVP it is associated with incomplete cervical dilatation that is leads to dystocia.

This condition which common in primigravida, have a incidence of 11.1 to 16.7% in cows (Wehrend and Bostedt, 2003). However, Purohit *et al.*, (2011) found the incidence of ICD in cattle and buffaloes to be 5.1%. It occurs because of altered endocrine milieu during parturition. Cervico-vaginal prolapsed (CVP) is mediated by increased circulating concentrations of estrogens and relaxin during last trimester of pregnancy leading to relaxation and softening of the pelvic ligaments. It is aggravated by the continuous straining by the dam and the incomplete dilation of cervix.

CASE HISTORY AND OBSERVATIONS

A four old cross bred cow in second parity was brought to the VGO wing of Referral Veterinary Polyclinic, IVRI, Izatnagar, U.P with the history of full term gestation. Animal had non-productive straining and first degree CVP for last two days. Gross examination of animal showed relaxed pelvic ligaments and completely developed udder. All vital parameters were within the normal range. Per-vaginal examination revealed patent vagina, with only 1 finger cervical dilation. Prolapsed mass was protruded through vulva. Per rectal examination revealed that foetus was in anterior presentation and dorsosacral position.

TREATMENT AND DISCUSSION

Animal was given epidural anaesthesia with 2% lignocaine (LOX[®], Neon Labs, India) at the dose rate of 1ml for 100 kg body weight to reduce straining. Then, the prolapsed mass was cleaned with running tap water and Potassium permanganate solution (1:1000 dilution) followed by application of icepacks to reduce edema and volume of the mass. A topical application of 2% lignocaine jelly (Lignox[®], Neon Labs, India) done over the prolapsed mass. The prolapsed mass was repositioned and crossmatrus suture was applied. Animal was stabilized with six liters of intravenous fluid. Additionally, calcium borogluconate 450 ml I/V was also administered. Dilation therapy for ICD consisted intramuscular injections of dexamethasone 40mg, cloprostenol 500µg and valethamate bromide 80mg with periodical fanning and fathering of the cervix. Per-vaginal examination 8 hr post-treatment revealed 4 finger dilation along with suckling reflex of the foetus and cervical massage was repeated. About 8 hr post therapy, chorioallantoic sac appeared at the external os of the cervix through the prolapsed mass that ruptured spontaneously due to movement of animal. Since cervical dilation was inadequate even after 12 hours, dexamethasone and valethamatebromide 48mg were repeated along with fanning and fathering of cervix. After 4hrs of second treatment, the cow delivered a male dead fetus with mild obstetrical intervention. Fetal membranes were expelled after 5-6 hours. As the cow was normal and alert, it was discharged with routine prescription of antimicrobials and supportive therapy.

In cattle and sheep, the CVP is usually seen in pluripara in the last trimester of pregnancy. Predisposing factors include increased intra-abdominal pressure associated with increased size of the pregnant uterus, intra-abdominal fat, or rumen distention superimposed upon relaxation and softening of the pelvic girdle and associated soft-tissue structures in the pelvic canal and perineum mediated by increased circulating concentrations of estrogens and relaxin during late pregnancy (Hanie, 2006 and Jackson, 2004).

Dystocia due to ICD occurs because of the changes in activation of inflammatory mediators like cytokines along with altered endocrine milieu during the process of parturition. In the present case, combination of cervical massage (Honparkhe *et al.*, 2009) along with use of valethamate bromide and $\text{PGF}_{2\alpha}$ resulted in successful dilatation of cervix as reported earlier in cattle and buffalo (Purohit *et al.*, *(loc. cit)*; Das *et al.*, 2008). Recently, intracervical application of misoprostol (PGE_1 analogue) has been reported in cattle (Azawi *et al.*, 2011) and goat (Azawi *et al.*, 2012) with ICD. Cervicotomy approach was also reported for ICD in cattle (Sathiamoorthy *et al.*, 2011). Increased concentration of estrogen causing relaxation and softening of the pelvic ligaments along with increased intra-abdominal pressure might have predisposed to CVP. First degree CVP was managed with epidural 2% lignocaine and calcium therapy. Death of the foetus may be due to prolonged asphyxia caused by rupture of water bag.

CONCLUSION

Cervicovaginal prolapse more commonly occurs in cattle and sheep. There are a number of factors which involve in the course of parturition in a synergistic mechanism to deliver the fetus. Any deviation or alteration in any factor leads to the abnormal condition like dystocia or prolapse in periparturient period. The condition like ICD come in midway during parturition and eventually the animal suffers from dystocia. It not only hampers the health of the animal but also inflicts the economy of the farm severely. So the animal should be provided proper care and management and urgent medication during the periparturient period to avert such types of conditions.

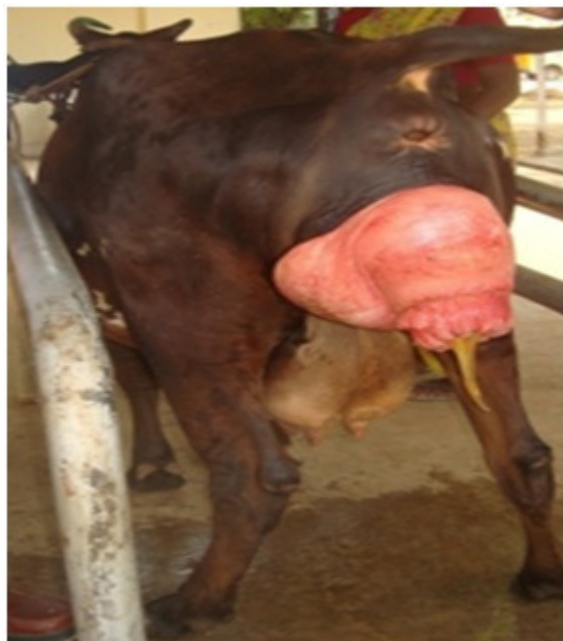


Fig A: Protruding Cervico-vaginal prolapsed mass



Fig B: Replaced Cervico-vaginal prolapsed mass

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