CERVICOTOMY APPROACH FOR DYSTOCIA DUE TO IMPERFECT CERVICAL DILATATION (ICD) IN A COW

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INTRODUCTION

Unlike other domestic mammals, the bovine cervix being more muscular, fibrous and tightly closed during pregnancy, may lead to severe dystocia if not properly relaxed and dilated (Roberts, 1971). Incomplete cervical dilatation (ICD) may occur due to inadequate preparation with estrogen and relaxin (Sloss and Dufty, 1980). Ischemia of the cervical region may also be responsible for delayed or ICD during and following correction of uterine torsion. In bovines, cervicotomy may be adopted in certain cases of ICD rather than immediately resorting to caesarean operation (Pearson, 1971). The present report describes cervicotomy approach in a cow with dystocia due to ICD resulting from pre-partum vagino-cervical prolapse.

CASE HISTORY AND OBSERVATION

A four year old full term pregnant Holstein-Friesian crossbred cow unable to deliver was presented to the Large Animal Obstetrics Unit of the Madras Veterinary College Teaching Hospital with the history of straining since four hours with fetal limbs protruding outside the vulva. On inquiry, it was reported that the cow had recurrent vagino-cervical prolapse one week earlier and was treated by a local Veterinarian. On clinical examination, the cow had frequent straining and appeared dull and exhausted. The rectal temperature was 102°F. Vaginal examination revealed edematousvulval lips with patent vaginal passage. Cervix was partially dilated with thin and inflamed cervical rim. The fetus was in anterior longitudinal presentation (P1), dorso-sacral position (P2) with head located anterior to the cervix and resting over the extended forelimbs. The fetal reflexes were palpable.

The cow was treated with inj. calcium borogluconate (350 ml) as slow intravenous drip followed with 5% dextrose normal saline (3000 ml). After 30 minutes, pervaginal examination to assess the cervical relaxation revealed no further progression. The above treatment was repeated. Subsequent pervaginal examination after 30 minutes revealed no appreciable progress. The case was diagnosed as imperfect cervical dilatation (ICD; first degree) and decided to relieve dystocia adopting cervicotomy approach.

TREATMENT

Under low caudal epidural anaesthesia with 8 ml of 2% lignocaine HCl., the fetal head was brought to the cervix by applying long obstetrical hook in the inner canthus of the eye so that the cervical folds were tightly engaged over the fetal head. Both the head and forelimbs were kept taut and about 8 cm long incision was made on the right dorso lateral aspect of the cervix involving only the circular muscles. Subsequently, the cervix dilatation was sufficient enough to deliver a live male calf by manual traction. The cervical incision was sutured simple continuous pattern using absorbable polyglycolic acid (Size-2). Mild haemorrhage that occurred was controlled by the application of artery forceps and ice pack. Shark liver oil with sulphanilamide was applied intravaginally to prevent adhesion. Vulval retention suture was applied to prevent the recurrence of vagino-cervical prolapse. The dam was treated with injections of

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dextrose normal saline (2000 ml), Amoxycillinandcloxacillin 3 g, Meloxicam 15 ml, calcium borogluconate (250 ml) and oxytocin (40 I.U) intravenously. Antibiotics, antihistamine, anti-inflammatory drugs were continued for the next 5 days. The vulval retention suture was removed on the third day and the cow recovered uneventfully. Pearson (1971) has recommended sectioning the cervix per vaginum in ICD cases, if the birth canal caudal to the cervix is dilated sufficiently to allow delivery and the remaining cervical rim is thin and stretches like a sleeve on the fetus when traction is applied. In the present case, considering the thin and stretchable cervical rim, cervicotomy approach was adopted. Cervicotomy is contraindicated if the cervix is thick and indurated as it might lead to extensive uterine tear (Noakes et al., 2009). Asokan*et al*. (1993) successfully adopted cervicotomy and tracheolorraphy technique to treat irreducible uterine prolapse in buffaloes. The probable cause of ICD in the present case might be due to the ischemia and inflammatory changes that occurred consequent to recurrent vagino-cervical prolapse. Hence, it may be concluded that in case of ICD of first and second degree, cervicotomy approach can be adopted to relieve dystocia in cows, instead of cesaerean section.

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