

OBSTETRICAL MANAGEMENT OF IMPERFECT CERVICAL DILATATION BY CERVICOTOMY IN A JERSEY COW

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ABSTRACT

A primiparous Jersey cow was brought in lateral recumbency with the history of straining and past occurrence of antepartum prolapse a week before. Vaginal examination revealed incomplete two finger cervical dilatation with a very thin cervical rim. Cervicotomy was performed to remove the live male fetus and the animal recovered uneventfully.

Keywords: Imperfect cervical dilatation, Cervicotomy, Cattle

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Ischemia of the cervical region caused by prepartum prolapse in a cow may cause imperfect cervical dilatation (ICD), making normal foetus expulsion difficult even with normal foetus presentation, position, and posture. In such instances, a cervicotomy is a less invasive treatment than a caesarean section for resolving the problem (Noakes *et al.*, 2009). The present report places on record such a case of ICD in a Jersey cow and its correction by cervicotomy. Fat mobilisation is one of the metabolic processes that might decrease the availability of magnesium and calcium, which can cause uterine inertia and cervical dilation failure (Anon, 2006). Primary uterine inertia may be caused by

hypocalcaemia, hypomagnesemia, old age, illness, inactivity, premature births, and possibly hyposelenemia (Mee, 2004). Another possible cause is an insufficient secretion of hormones that control uterine contraction, such as oestrogen, relaxin, and prostaglandin, or an imbalance of these hormones. Secondary uterine inertia may result from twin calving, protracted dystocia, and malposition (Noakes *et al.*, 2009). According to Wehrend *et al.* (2003), 17% of dystocia cases in cows and 38% in beef cattle had cervical origins (Sloss *et al.*, 1967).

Case history and Observation

A primiparous Jersey cow was brought to the Veterinary Clinical Complex, Madras Veterinary College, in lateral recumbency with the history of full-term pregnancy, anorectic,

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straining for the past four hrs. It was also reported of occurrence of antepartum vaginocervical prolapse one week before.

Upon vaginal examination, one foreleg was protruding out just after cervix through the cervix and fetal pedal reflex were present. Cervical rim was very thin and tightly closed around the foreleg. Cervix allowed only two finger dilatation and remaining fetal parts were not palpable. On clinical examination animal was dull and depressed and all other parameters were normal.

Treatment and Discussion

Animal was administered with three litres of Dextrose normal saline (5.0%) intravenously, followed by Inj Calcium borogluconate (300 ml IV) slowly. Carboxy methylcellulose was mixed in normal luke warm water and administered through the two finger dilated external cervical os with feathering and fanning. After 30 minutes of administration there was no progressive improvement in the dilatation. Hence the case was diagnosed as imperfect cervical dilatation (ICD) and was planned to be corrected by cervicotomy.

For restraining and to reduce straining low caudal epidural anaesthesia was induced by the administration of 1ml 2% Lignocaine HCl/ 50 kg b. wt. Cervix was retracted and held in position by placing the snare over the extended foreleg and incision was made only on the circular muscles in the left dorso lateral aspect of the cervix. The calf was presented

with anterior longitudinal presentation (P_1), dorso sacral position (P_2) and flexion of right forelimb (P_3). A live male fetus was relieved by traction after correction of flexed right forelimb and incision was closed by continuous lockstitch suture pattern by using absorbable PGA-2. Cervix was flushed with normal saline and cetrimide cream applied and placed in position. Oxytocin 50 IU intravenously was administered and Buhner's method retention suture was applied to prevent recurrence of prolapse. Steptopenicillin 5 g IM, Meloxicam 0.5 mg/kg SC, Chlorpheniramine maleate 0.5 mg/kg IM, Tribivet 10 ml IM were given for a week and animal showed full recovery.

Cervicotomy is a straightforward and successful procedure for treating cows with ICD (Raja *et al.*, 2019). Pearson (1971) recommended sectioning the cervix per vaginum if the birth canal caudal to the cervix has dilated sufficiently to facilitate delivery and the remaining cervical rim is thin and stretched like a sleeve over the fetus when traction is applied.

Cows have cervixes that are comparatively more cartilaginous than other farm animal species, and if it is not adequately dilated during parturition, severe dystocia can follow (Sloss *et al.*, 1980). Animals cervical ripening is not well understood (Subash *et al.*, 2017).

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