Short Communication

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Management of Dystocia through Subcutaneous Fetotomy in Holstein Friesian Cow: A Case Report

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ABSTRACT

A successful delivery of dead fetus with right lateral deviation of head and neck in Holstein Friesian cow and its management through subcutaneous fetotomy is reported. Post-operative care compromised of administration of antibiotics, anti-inflammatory, ecobolic drugs along with supportive therapy.
Key words: Dystocia, Holstein Friesian cow, Subcutaneous fetotomy.

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INTRODUCTION

Dystocia or difficulty in birth may be due to pathological alterations in genital tract including inadequate relaxation of posterior vagina and vulva, inability of cervix to dilate, prolapsed bladder into the birth canal (Kumar *et al*., 2018), uterine torsion (Kumar *et al*., 2014), narrow pelvis, tumor, exostoses and fracture in pelvic area (Kumar *et al*., 2017), displacement in gravid uterus and inadequate force of expulsion. If case is handled in early part of the second stage of labor, defects related to posture can be easily corrected by obstetrical operations. However, in neglected cases or cases already handled by layman, application of improper forced traction may result in complication. Assisted delivery through birth canal is impossible in such cases and caesarean section or fetotomy technique is the final way to treat dystocia. Lateral deviation of head and neck is one of the common postural abnormalities and it has greater possibility in late gestation instead during birth when fetus is in anterior presentation and it leads to dystocia in all species (Noakes *et al*., 2009; Rajashri *et al*., 2014). This case illustrates successful management of dystocia due to lateral deviation of head and neck in a Holstein Friesian cow and its management through subcutaneous fetotomy.

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CASE HISTORY AND OBSERVATIONS

A 12 year old pluriparous Holstein Friesian cattle in its 6th parity was presented in clinics of Veterinary Gynaecology and Obstetrics, College of Veterinary and Animal Science, Bikaner with history of labor greater than 10 hr. Obstetrical stratagem was carried out by a field veterinary officer to resolve dystocia but was not fortunate. The animal was presented in lateral recumbency, also straining vigorously, dull and depressed with protrusion of both limbs outside genitalia. Per vaginal exanimation revealed a dead fetus in anterior longitudinal presentation and dorsosacral position with extended forelimbs and right lateral deviation of head and neck. The birth canal was dilated and dry with swollen and edematous vulvar lips.

TREATMENT AND DISCUSSION

Based on the history, clinical signs and symptoms and per vaginal examination, the case was diagnosed as dystocia due to right lateral deviation of head and neck. The animal was treated firstly with fluid therapy to restore the general health conditions and then with 2% lignocaine hydrochloride (7 ml) as epidural anesthesia at sacro-coocygeal region to nullify straining and pain. Liquid paraffin was poured into the birth canal through an irrigator to avoid dryness. To develop space in the birth canal subcutaneous fetotomy of both the extended forelimbs was planned. A fetotomy knife was introduced inside the birth canal and an incision was given on one forelimb's skin from the scapular point to metacarpal bone. Forelimb skin was separated from bone and manual separation of pectoral to scapular muscles was done. With the use of ropes, forced traction was applied on the limb under the skin. The limb was separated from the scapular attachment and taken out. Similarly, another limb was removed and sufficient space was created. Deviated head and neck were corrected by a long obstetrical hook fixed in medial canthus of left eye. After correction of posture, the dead fetus was delivered by forced traction (Fig. 1).

Fig. 1: Dead fetus of cow along with amputated extremities

The cow was treated with fluid therapy again [Inj. DNS (5%) 3 L, RL 1 L, Metronidazole (Metrogyl) 500 ml and Calcium Boro Gluconate 450 ml IV], inj. Tefrocef (MSD) 1 gm IM, inj. Melonex 15 ml IM (Intas), inj. Avilin Vet (MSD) 10 ml IM, inj. Beekom L (Vetoquinol) 10 ml IM, liquid Utrasafe (Vet-mankind) orally and bolus Pesuria (IIL) 4 boli intrauterine were administered for 3 days. Cattle recovered uneventfully without any postpartum complications.

Dystocia or difficulty in birth is always an emergent condition and requires urgent care. The most common deviation of the head seen is the lateral deviation (Purohit and Mehta, 2006), other deviations like the upward and downward (vertex and/or nape presentation) being rarely found.

Lateral deviation can be corrected by bringing the head in a normal position after repulsion and use of hooks and snares. In most cases these operations are performed within the uterus of the dam in order to remove the fetus per vaginum (Benesch and Wright, 2001). When mutation fails to treat dystocia, fetotomy may be the primary option if the fetus is deceased and approachable (Kumar *et al*., 2019) comparable to what was done in this instance, and if all other measures fail, proceed for a C-section (Munroe and Jonker, 2014).

CONCLUSIONS

It is concluded that dystocia due to tightly impacted fetus with lateral deviation of head and neck can be successfully managed by fetotomy technique and/or obstetrical maneuvers.

CONFLICT OF INTEREST

The authors declare no conflict of interest among themselves.

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