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MANAGEMENT OF DYSTOCIA DUE TO BREECH PRESENTATION IN A HOLSTEIN FRIESIANS COW- A CASE REPORT

PRAMOD KUMAR*, **SATISH¹**, **SHIVENDRA KUMAR
BHALOTHIA²**, **TAPENDRA KUMAR²**,
BHANU PRAKASH², **RAJENDRA MEHRA²** AND **SASI G²**
**DEPARTMENT OF VETERINARY GYNAECOLOGY
AND OBSTETRICS, COLLEGE OF VETERINARY AND
ANIMAL SCIENCE, RAJASTHAN UNIVERSITY OF
VETERINARY AND ANIMAL SCIENCES, BIKANER,
RAJASTHAN, INDIA.**

*** ASSISTANT PROFESSOR, ¹PH. D STUDENT AND ²
M.V.SC STUDENTS**

Corresponding author's e-mail: dhaterwal.pramod@gmail.com.

ABSTRACT:

A rare case of breech presentation with arthrogyrosis in one hind limb and its correction with mutation is reported. Post-operative care comprised of administration of antibiotics, anti-inflammatory drugs, ecobolics, along with multivitamin supplements.

KEY WORDS: Cow, Dystocia, Breech Presentation, Monster.

INTRODUCTION:

Dystocia is defined as delayed and difficulty in parturition and it require human assistance (Lombard *et al.*, 2007). Faulty disposition of fetus has also frequently been reported as a cause of dystocia (Noakes *et al.*, 2009). In posterior presentation and dorso-sacral position, when both hind legs are extended beneath the fetal body in uterus is called breech presentation. Viswanath and Ranjith, 2018 reported that 7.50 per cent dystocia are in the posterior presentations in which incidence of breech presentation, hock flexion and extended hind limbs were 2.50, 2.50 and 2.50 per cent, respectively.

Management of dystocia in breech condition is previously reported by Senthil *et al.*, 2016; Dogra *et al.*, 2017 in cow and by Sachan *et al.*, 2014 in buffalo. Degree of engagement of fetus in maternal pelvis varies and in some cases the hand cannot be passed to hock of calf. Breech presentation constitutes one of the most difficult type of dystocia dealt by obstetrician. Mostly on per-vaginal examination, calf's tail is recognized in the birth canal. Arthrogyposis is a congenital malformation caused by an autosomal recessive gene and characterized by curvature of the limbs, multiple articular rigidity and muscular dysplasia (Goonewardene and Berg, 1976; Nawrot *et al.*, 1980; Jubb *et al.*, 1993). This paper aims to report a case of breech presentation dystocia with arthrogyposis of one hind limb which was corrected by mutation in a Holstein Friesians cow.

CASE HISTORY:

A nine years old Holstein Friesians cow with full term pregnancy in her fourth parity from a nearby village was presented to the Teaching Veterinary Clinical Complex, College of Veterinary and Animal Science, Bikaner. The allantoic sac was ruptured before 5 to 6 hours and the animal strained continuous but no further progress was observed. The animal was examined by local paravet who refer to the case in TVCC, Veterinary College, Bikaner.

Handling of dystocia

The animal was in right lateral recumbency with excessive straining. Normal Rectal temperature (101°F) and bright-pink mucous membrane with healthy condition was noticed. The animal was administered with 8ml 2% lignocaine hydrochloride epidurally. Per-vaginal examination revealed that the fetus was in posterior longitudinal presentation, dorso-sacral position, and bilateral hip flexion with the buttocks close to the pelvic brim along with presence of fetal tail in the birth canal; hence a case of breech presentation was diagnosed. There was no fetal movement and other reflexes, indicative of dead fetus. An assisted delivery was attempted by obstetrical maneuvers like mutation and forced extraction.

The fetus was pushed forwardly and the left hoof was grasped and limb flexed. The hoof was pulled medially and foot drawn back in an arc fashion. The hoof was then lifted over the pelvic brim and extended in the vaginal passage. The same procedure was repeated on the right hind limb. Right hind limb was fused with abdomen wall,

so fetus was pushed forward and upward to bring the hocks nearer to the pelvic cavity and along its correction, pelvic was completely lodged in birth canal and finally the fetus was removed by traction. As per Roberts (2004) the condition could be classified as an in arthogyposed monster (Fig.1).

The cow was administered with fluid therapy (2 liters of Normal saline, 3 litres of Dextrose normal saline and calcium magnesium borogluconate (Mifex®- Novartis, India 450 ml slow IV), antibiotic (Amoxycillin and sulbactam (Sodamox, Boehinger Ingelheim, India) 4.5 gm IV), anti-inflammatory (7 ml Flunixin IM; Unizif Intas), and Chlorpheniramine Maleate (Anistamin®8 ml IM, Intas Pharmaceuticals Ltd, Ahmedabad, India). Four Cleanex boluses (Urea 6g+ Nitrofurazone 60mg+ Metronidazole 100mg + Povidine Iodine 60mg/Bolus, Merial) were placed in the uterus of the cow and herbal uterine cleanser given (Liq Utrasafe, Vet Mankind) 100ml orally for 10 days. The owner was advised for proper care and follow up the treatment of the animal for 3 to 5 days.

DISCUSSION:

Predisposing factors for breech presentation include pre maturity, uterine malformation or fibroids, polyhydrominios, placenta previa, fetal abnormalities e.g. CNS malformations, neck masses aneuploidy (Hickok *et al.*, 1992). Bilateral hip flexion in caudal presentation is known as breech presentation whereas unilateral hip flexion is referred as “hip flexion posture”. Hock flexion is comparatively common over other deviations and correction is easy, however, manipulative corrections in a caudal presentation should be carefully done (Purohit and Mehta, 2006). The aim of treating was to correct breech presentation by converting into hock flexion and delivery of calf with little traction. It is one of the most difficult postures to handle especially if the fetus is dead. The fetus is pushed forward and upward to bring the hocks nearer to the operator to convert the presentation to a hock flexion posture and then correction made accordingly. Bisection of pelvis to remove one limb may be attempted in order to relieve dystocia. In the present case, following a correct diagnosis, dystocia due to breech presentation was relieved through mutation efforts

which avoided economic loss to farmer and stress and postoperative complications of cesarean operation to dam but in difficult cases caesarean section may be advisable.

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CONFLICT OF INTEREST:

An author declares that there is no conflict of interest.

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Fig.1: Fetal monster showing arthogyposis of right hind limb and their fusion with pelvic area