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Management of malpositioned fetus by partial percutaneous fetotomy and mutational technique in a non-descript cow: A case report

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Abstract

The present case study reports dystocia due to lateral deviation of the fetal head and neck and its successful delivery after partial percutaneous fetotomy and mutational operation in a pluriparous non-descript cow.

Keywords: Dystocia, lateral deviation, mutation, percutaneous fetotomy, postural defects

Introduction

The fetal causes of dystocia are more numerous of which the commonest are postural defects of head and forelimbs in ruminants [1]. The deviation of fetal head and neck in anterior presentation had been one of the common forms of foetal dystocia in bovine species posing greater problem to field veterinarians and often threatening the life of the dam also [2, 3]. Deviations of head and neck are common type of abnormal posture in anterior presentations causing dystocia in all species [4, 5]. Srinivas *et al.* [6] reported in a study that 40.84% of dystocia in graded Murrah buffalo was due to fetal cause, among which head deviations were of 42.2%. The present communicate reports a case of dystocia due to lateral deviation of the fetal head and neck and its successful management in a pluriparous non-descript cow.

Case History and Observation

A full term pluriparous cow was presented to the Teaching Veterinary clinical Complex (TVCC), Rajendranagar, Hyderabad with the history of recurrent straining since 16 hours. The owner had attempted to deliver the fetus by application of traction on both the fore limbs but the efforts were futile. The cow was brought in lateral recumbency with fetal forelimbs protruding from the vagina (Fig 1). Clinical examination revealed that the rectal temperature, heart and respiratory rates were within the normal limit. On per-vaginal examination, it was observed that the cervix was fully dilated and the fetus was presented in anterior longitudinal presentation, dorso-sacral position with extreme lateral deviation of head and neck. The fetal forelimbs were extended.

Treatment

Caudal epidural analgesia was induced by administration of Lignocaine HCL (7ml) between sacro-coccygeal intervertebral space. Luke warm Carboxy Methyl Cellulose (1%) was infused into the vagina. An attempt was made for the correction of lateral deviation of head and neck by mutation. However, the repulsion was not possible due to the extended forelimbs and tightly packed fetus in the birth canal. Due to lack of adequate space in the birth canal it was decided to perform percutaneous fetotomy. Both fore limbs were amputated by making fetotomy cut at shoulder region with the help of a sharp knife which created space for obstetrical intervention. Sharp obstetrical hook was passed into the uterus and fixed to the fetal mandibular bone. Repulsion of the fetus at brisket region and simultaneous traction on the mandibular bone resulted in correction of the malposture. The fetus was relieved by applying gentle traction in downward and backward direction (Fig. 2). Placenta was expelled along with the fetus. The cow was administered with fluid therapy (3 litres of normal saline and 1 litre of dextrose normal saline I/V), Broad spectrum antibiotic (4g of ceftriaxone, I/V) anti-inflammatory 60 mg of Meloxicam I/M, 50 mg Chlorpheniramine maleate I/M, Tetanus toxoid 5ml and 10 ml of Tribivet (Vitamin B complex Injection) were administered.

Four Furea boluses were placed intra-uterine. The complete treatment was advised further for five days.

Discussion

The lateral deviation of head especially in a dead fetus becomes life threatening for the dam due to uterine contractions in inappropriately treated cases [7]. Determination of the fetal presentation, position and posture were the three crucial steps before application of test traction, lack of which resulted in unsuccessful attempts of the owner. Moreover, application of traction on the fetal fore limb without observing fetal head position results into further complication [5]. The present case was complicated due to impulsive traction by the owner without examination of the condition which might had resulted in extreme deviation of head and neck.

Fetotomy is recommended to avoid the major abdominal surgery of caesarean section, required less assistance, shorter recovery time, less aftercare and low cost than caesarean section [8]. When the calf is already dead, fetotomy is the method of choice due to optimal cow survivability [9]. Combination of fetotomy and mutational techniques made it possible to relieve the dead fetus. Previously, Fetotomy in cows was also performed by Otonari *et al.* [10] Rao & Murthy [11]. Phogat *et al.* [12] advised to perform partial fetotomy in case of difficulty in treatment of lateral deviation of head in buffaloes. Post-operative medication caused early recovery of the cow without any complications.



Fig 1: Showing non-descript cow suffering from dystocia with fetal forelimbs protruding from the vagina



Fig 2: Image showing dead fetus along with placenta relieved by partial fetotomy and mutational technique

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