

Dystocia in Murrah Buffalo with Fetal Limb Anomaly: A Case Report

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Abstract

Caesarean section in buffaloes is an emergency operative procedure, used as a last remedy to treat the cases of dystocia and for the delivery of fetal monsters or for delievery of fetuses with anomalies. A full-term dystocia affected buffalo in its third parity was brought to the Teaching Veterinary Clinical Complex, at the International Institute of Veterinary Education and Research (IIVER), Rohtak Haryana for treatment. Anamnestic data revealed normal body vitals including temperature of 101.4°C and pulse of 75/minute. On per vaginal examination, it was revealed that fetus was presented in normal anterior presentation with dorso-sacral position. It was also found that there was malformation of forelimbs (abnormally bent limbs) and which were retained beneath the body of fetus, while as hind limbs of fetus were not accessible. The extension of limbs was difficult due to their malformation & abnormal curvature. Hence, it was diagnosed as a case of dystocia due to malformed fetal limbs and a decision to relieve it through an emergency cesarean section was undertaken.

Keywords: Murrah Buffalo, Caesarean section, Dystocia, Fetal limbs anomaly

Fetal anomalies involve malformation of fetus and are common causes of dystocia in cattle and buffalo (Shukla *et al.* 2007). Developmental abnormalities of ovum, embryo or fetus occur in all species of domestic animals. Fetal anomaly arises as a result of disturbance of the development that involves various organs and systems which can cause great distortion of the individual (Vegad, 2007). Congenital defect present at birth signifies the abnormality of structure or function which may affect a single structure or function, part of system or its structure and function and/or an entire system (Patel *et al.* 2016). Fetal anomaly is one of the

cause of dystocia in case of buffalo. Various invasive procedures like fetotomy and caesarean section have made the work of veterinarians easy in handling the cases of dystocia. However, there is a dilemma between these two procedures which is largely due to poor dam survival rates and poor fertility (Singh *et al.* 2013), however many reports depicted that dam survival is high when the operation is performed early without previous handling (Nanda *et al.* 1991; Murty *et al.* 1999; Singh and Dhaliwal, 1998; Singh *et al.* 2002; Purohit *et al.* 2011) and thus an early decision to perform an caesarean section greatly improves dam survival.

CASE HISTORY & OBSERVATION

A full-term dystocia affected buffalo in its third parity was brought to the Teaching Veterinary Clinical Complex, at the International Institute of Veterinary Education and Research (IIVER), Rohtak Haryana for treatment. It had a history of straining for the previous 15-20 h with unsuccessful attempts to deliver the fetus. Further, anamnestic data revealed that local field practitioner prior attended the case, as a result of which protruding fetal head was amputated by him. On per vaginal exam, it was revealed that fetus was presented in normal anterior presentation with dorso-sacral position. Both the forelimbs were malformed and were having typical bent which were flexed beneath the body of fetus, while as hind limbs of fetus were not accessible. Hence, it was diagnosed as a case of dystocia due to malformed fetal limbs and a decision to relieve it through an emergency caesarean section was undertaken.

TREATMENT AND DISCUSSION

Forced extraction was tried but due to defective fetus (Fetal limb anomaly), it was not successful. The usual operative procedures utilized for surgical interventions was followed. After shaving and scrubbing the operative site was prepared and local infiltration anesthesia was infused at the operative site using 2% lignocaine hydrochloride. The skin on left ventrolateral site was incised and separated from the subcutaneous layer. The muscles were then incised ligating all the blood vessels. The peritoneum which is a glistening white layer was cut by first making a nick with a scissor and then guiding the cut by a finger placed underneath the skin. The attachment of the muscles were cut using the ventrolateral approach. Due to the long standing nature of dystocia it was difficult to bring the uterus at the operative site and thus the uterus was incised in the abdominal cavity. The fetus with malformation of limbs was delivered (Fig. 1) and the margins of the uterus were washed with sterile normal saline. The

uterus was sutured using absorbable suture material (Chromic catgut 2/0 or 3/0) employing lambert pattern. The muscle and peritoneal layers were sutured using the same suture material and employing continuous suture pattern. The skin was sutured using silk by interrupted sutures. Post-operative treatment included fluid therapy (Normal saline solution 5 litres, IV), antibiotics, anti-inflammatory cum analgesics, rumenototics and multivitamins for the next 5 days. Antiseptic dressing of the surgical wound was done on alternate days and skin sutures were removed after two weeks post-caesarean section.



Fig. 1: Fetus with malformed limbs delivered after caesarean section

Deviation of forelimbs is the most common cause of dystocia due to fetal malpresentation in cattle and buffalo. When a portion of forelimb is caught in the pelvic inlet, it is forced backwards towards the body due to the contractions, resulting in dystocia due to an increase in the pectoral diameter. Flexion of one or both forelimbs is common cause of dystocia in buffalo. Most of the abnormal presentations, positions and postures described for cattle are seen in the buffalo, but described mostly in river buffalo, with cases of limb flexion (Srinivas

et al. 2007). The present case was combination of fetal limbs malformation/anomaly along with flexed limbs.

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