Short Communication

DOI: 10.48165/ijar.2022.43.1.13

The Indian Journal of Animal Reproduction

The official journal of the Indian Society for Study of Animal Reproduction

Year 2022, Volume-43, Issue-1 (June)

ACS Publisher
www.acspublisher.com

ISSN 0970-2997 **(Print)**

Successful Clinical Management of Dystocia due to Fetal Emphysema in a Buffalo

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ABSTRACT

A non-descript buffalo in second parity presented to Referral Veterinary Polyclinic, ICAR-IVRI, Izatnagar with history of complete gestation length and inability to calve since 36 h despite continuous straining to deliver the fetus. The case was attended by local practitioner but failed to extract out the calf. A foul vaginal discharge was noticed with bilateral distension of abdomen. The case was diagnosed as dystocia due to emphysematous fetus and successfully managed through cesarean section.

Key words: Dystocia, Caesarean, Emphysematous fetus, Buffalo.

How to cite: Rashid, M., Chandra, P., Kumar, N., Singh, M., Kumar, A., Vandana, & Kumar, B. (2022). Successful Clinical Management of Dystocia due to Fetal Emphysema in a Buffalo.
The Indian Journal of Animal Reproduction, 43(1), 71–73. 10.48165/ijar.2022.43.1.13

INTRODUCTION

Dystocia is defined as delayed or difficult calving, sometimes requiring significant human assistance (Zaborski *et al.,* 2009). There are minimal chances for fetal causes of dystocia in case of buffalo however, uterine torsion, incomplete cervical dilation or uterine torsion associated with incomplete cervical dilation are the leading cause of dystocia. Fetal emphysema is a common sequela of protracted and many a times handled case of dystocia in bovine exceeding over 24 h. After such prolonged cases, abdominal contractions are weak and intermittent for a few hours and then cease completely (Purohit and Mehta, 2006). Fetal death may result in an increase in fetal size due to putrefaction of the fetus and accumulation of gases in the subcutaneous tissue in the following 24-72 h (Purohit and Mehta, 2006). Fetid watery discharge may be seen and the vaginal mucus membrane is usually dry, swollen and inflamed. Invasion by microorganisms from the vagina is the common cause of emphysema in dead foetuses (Srinivas *et al.,* 2007). In these cases, prognosis is reserved because of the possible toxaemia. Present communication describes a case of dystocia due to downward deviation of head and neck, further complicated by fetal emphysema in a she buffalo.

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Received 13-01-2023; Accepted 03-04-2023

CASE HISTORY AND OBSERVATIONS

A non-descript buffalo of 6 years age and in second parity, was presented in the Referral Veterinary Polyclinic, ICAR-IVRI, Izatnagar, with the history of dystocia since past 36 h. The buffalo was handled at field level but was unable to deliver the fetus.The gestation period of the animal was complete and animal looked dull and depressed. Signs of parturition like mammary engorgement and relaxation of sacrosciatic ligament were clearly evident. Per-vaginal examination revealed a crepitating foul smelling emphysematous dead fetus in anterior longitudinal presentation, dorso-sacral position with downward deviation of head and neck. Thecervix was fully dilated and both the fore limbs of the fetus were fully extended into the birth canal. A large ventral uterine tear close to the cervix was noticed. As the foetus was completely emphysematous so there was lack of adequate space in the birth canal. The above findings confirmed the case of dystocia due to postural deviation followed by fetal emphysema and was referred for caesarean section

TREATMENT AND DISCUSSION

The buffalo was stabilized by administering DNS (5%) 4 litres I.V. infusion, Inj. Enrofloxacin 25 ml, Inj. Meloxicam 15 ml, and Inj. Avil 10 ml via intramuscular route. The birth canal was liberally lubricated with liquid paraffin. Attempt was made to bring the head of the fetus into the birth canal by repelling the fore limbs but adequate space could not be created for the manoeuvre due to the emphysematous fetus and ventral tear of birth canal, so it was finally decided to perform caesarean section. Caesarean section was done as per the standard procedure by left lower ventro-lateral oblique incision (Fig.1). A dead foul smelling emphysematous male fetus (Fig.2) was removed from the gravid horn. Gross observation confirmed that the fetus was dead and had crepitating feel. The buffalo was treated with injection Ringer's lactate 5 litres as I.V. infusion, Inj. Intacef Tazo 4.5 gms O.D. and Inj. Meloxicam 15 ml I.M. Inj. Metronidazole (20 mg/kg body weight) was given in divided doses all medication continued for 5 days. The buffalo was discharged after 2 days and had uneventful recovery.

Majority of studies on cattle indicate that the fetus is the major cause of dystocia (Wehrend *et al.,* 2002), while the fetal origins of dystocia are less frequent in buffalo (Purohit and Mehta, 2006). Broadly speaking, the fetal origins of dystocia can be divided into those caused by excessive fetal size relative to the maternal pelvis (feto-pelvic disproportion) and those caused by abnormalities of the fetus (fetal monsters, fetal diseases and fetal mal disposition) (Youngquist, 1997). Dystocia in the present case was due to fetal oversize and fetal maldisposition. Oversized foetuses can only be removed either by fetotomy or by caesarean. In fetal emphysema, it may be necessary to relieve the gas by deep incisions and/or partial fetotomy followed by correction of position and removal of the fetus by traction. Considering the condition of the fetus and the dam, caesarean section was preferred over fetotomy in the case under report. Care and attention should be given to the general condition of the dam before handling. Caesarean section should only be considered as a last resort because of the potential dangers of developing peritonitis.

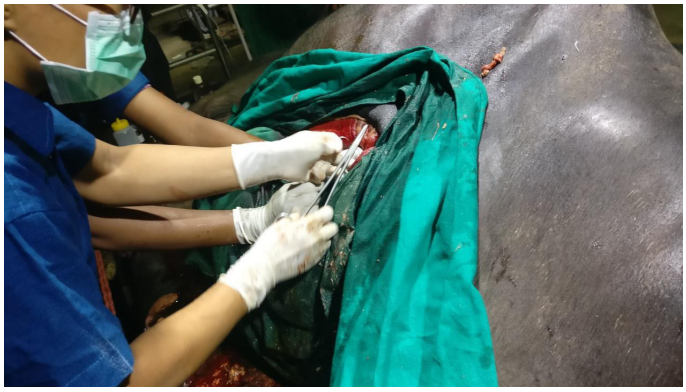

Fig.1: Caesarean section in buffalo

Fig. 2: Picture showing a dead emphysematous fetus

CONCLUSIONS

From this case it is concluded that fetal maldisposition leads to prolonged second stage of parturition which leads to the death of fetus followed by emphysema. Emphysematous fetus cannot be removed by simple traction rather caesarean section should be the ultimate choice.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

REFERENCES

Kaushik, S. K. and Mathur, A. C. (2005). Time of parturition and incidences of calving abnormalities in Murrah buffaloes. *Indian J. Anim. Sci.,* **75:** 227-8.

Phogat, J. B., Singh, P. and Gupta, S. L. (1993). Observations on dystocia due to emphysematous fetuses in buffaloes. *Indian J. Anim. Reprod.,* **14:** 65.

Purohit, G. N. and Mehta J. S.(2006). Dystocia in cattle and buffaloes. A retrospective analysis of 156 cases. *Vet. Pract.,* **7:** 31-4.

Wehrend, A., Reinic, T., Herfen, K. and Bostedt, H.(2002). Fetotomy in cattle with special references to post operative complications: an evaluation of 131 cases. *Dtsch Tierarztl Wochenschr,* **109:** 56-61.

Youngquist, R.S. (1997). Parturition and dystocia. In: Youngquist RS. *Current therapy in large animal theriogenology. Philadelphia: W.B. Saunders Co.* pp. 309-324.

Zaborski, D., Grzesiak, W. and Szatkowska, I. (2009). Factors affecting dystocia in cattle. *Reprod. Dom. Anim.*. **44:** 540-51.