



Case Report

DYSTOCIA DUE TO FETAL MAL-DISPOSITION IN A RIVERINE BUFFALO: A CASE REPORT

BISLA A.*, KUMAR B., NGOU A.A., SHEIKH P.A., RASHID M.

Division of Animal Reproduction, ICAR-Indian Veterinary Research Institute, Izatnagar, Bareilly, Uttar Pradesh 243122, India

*Corresponding Author: Email - amarjeetbisla@gmail.com

Received: October 15, 2018; Revised: October 25, 2018; Accepted: October 26, 2018; Published: October 30, 2018

Abstract: The pluriparous buffalo in third parity was presented with the history of a completed gestation period, initiated parturition process with the rupture of water bag around 12 h ago. Per-vaginal examination with well lubricated gloved hand revealed dystocia due to fetal maldisposition with dorso-pubic position and deviation of head. The animal was laid in the recumbent position, and with the application of obstetrical mutations and three-point traction, a live male fetus was delivered. The case depicts the birth of live fetus after prolonged period of water bag rupture.

Keywords: Buffalo, Fetal maldisposition, Dystocia, Dorso-pubic position

Citation: Bisla A., et al., (2018) Dystocia Due to Fetal Mal-disposition in a Riverine Buffalo: A Case Report. International Journal of Agriculture Sciences, ISSN: 0975-3710 & E-ISSN: 0975-9107, Volume 10, Issue 20, pp.- 7385-7386.

Copyright: Copyright©2018 Bisla A., et al., This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution and reproduction in any medium, provided the original author and source are credited.

Introduction

Dystocia (difficult birth) is an emergency and major obstetrical problem in the livestock species like cattle and buffalo. It has attained the importance of the presence of qualified veterinarians to save the life of both dam and fetus during handling of dystocia so that the undesirable economic losses to the dairy farmers can be minimized. Buffalo is the species in which the incidence of dystocia appeared to be common with the maternal cause accounting highest than in cattle. It has been reported by many workers that maternal causes of dystocia are more common in the buffaloes; viz: 64.2% [1]; 59.16% [2]; 59.82% [3]; 78.43% [4]; 80.33% [5] but few workers had reported the fetal cause of dystocia more common in buffaloes [6-8]. The most common cause of fetal dystocia in buffaloes is fetal maldisposition where limb flexion and head deviation appears to be most frequent [1, 3, 8, and 9]. The normal duration of the second stage of labour in the buffaloes is 43.16±1.21 minutes [10]. The incidence of fetal dystocia had been reported to be occurring more in pluriparous buffaloes [2, 7] which may occur due to oversized fetus and improper alignment of the fetus within the birth canal. The male calves are more associated with dystocia in the buffaloes [1]. The incidence of dystocia in buffaloes due to dorso-pubic position is not been reported so far but it appears to be a rare cause. The present article highlights a rare case of dystocia in the buffalo due to fetal maldisposition viz dorso-pubic position with left lateral deviation of the head and the delivery of a live male calf after 13 h of the rupture of first (Allantochorion) and second (Amnion) water bags.

Case history and observations

A Murrah graded buffalo in third parity was presented to the Referral Veterinary Polyclinic of the institute with the history of gestation period of 10 months and 5 days. The act of parturition had been initiated in the buffalo confirmed by the history of the rupture of first and second water bag around 12 hours ago and also evidenced by relaxation of sacrosciatic ligaments, teat engorgement, relaxation of perineum and the presence of fetal limbs outside the vulvar lips with persistent straining without expulsion of the fetus. On general examination it was found that animal was normally alert and active with normal rectal temperature, pulse and respiration. The per-vaginal examination of the animal with well lubricated gloved hand revealed that fetus was in the anterior longitudinal presentation, dorso-pubic position and left lateral deviation of head with both forelimbs completely extended

in the birth canal. There was severe left lateral deviation of head and only ear and part of poll could be palpated. There was history of application of traction at the field level by local practitioner. As per anamnesis narrated by owner regarding rupture of water bags since 12 h ago and no signs of livability were noticed with approachable reflex elicit points on the fetus.

Treatment and discussion

As it was confirmed that the case of dystocia was due to fetal maldisposition so to avoid the injury to birth canal and ease in handling animal was casted in right lateral recumbency. Obstetrical rope was tied on both extended fore limbs and were repelled back into uterus as much as possible resulting enough space in the birth canal so that fetal head could be approached. Muzzle along with lower jaw were grasped and rotated towards outside to correct the posture of the head. Thereafter long handled blunt eye hook was placed in medial canthus of right eye orbit and gentle traction was applied to correct the neck deviation, further traction was continued and head was extracted outside the birth canal. Then by cupping the hoof and gentle traction of obstetrical rope, both limbs were extended outside the birth canal one by one. Three-point traction was applied and fetus extracted out, surprisingly it was found that the fetus was live with initial feeble reflexes. Then the fetus was lifted by holding at hock level upside down position to remove any fetal fluids in the respiratory tract to enable proper breathing, later thoracic massage by hand and with rough towel, cleaning of respiratory passage and stimulation to nostrils with thin dried grass were done to bring normal breathing. Calf was put in front of the dam for normal maternal behaviour and licking and the dam responded positively. Calf started suckling to dam within two hour of delivery. The animal was given treatment consisting of broad spectrum antimicrobial Enrofloxacin @ 5 mg/kg b.wt. IM for 5 days (Quintas®- Intas, India), non-steroidal anti-inflammatory drug Meloxicam @ 0.5 mg/kg b.wt. IM for 5 days (Melonex®- Intas, India), oral herbal uterine cleanser Uterotone® (Cattle remedies- India) @ 100 ml PO BD for 5 days, and Intrauterine antimicrobials Furea® bolus (Pfizer Ltd.- India) @ 6 boli IU once after the delivery of fetus. The animal was discharged from the clinics after two hour of treatment. The animal delivered placenta normally after 4 hours and started intake of water and feed. As case was followed, the animal was having normal feed and water intake and giving around 6 litres of milk daily after 7 days of the delivery.



Fig-1 Buffalo presented with fetal limbs outside the vulvar lips



Fig-2 Live male calf delivered with the dam

The calf was also normally active and suckling milk normally without any difficulty. The case is rare because the normal second stage of labor in buffaloes is about 0.5-1.0 h [11] and usually fetal death occurs after a short period of the rupture of the second water bag due to improper breathing and inspiration of the fetal fluids in the respiratory tract. A case of dystocia in buffalo due to fetal maldisposition consisting of lateral deviation of head with successful delivery of the dead fetus by applying traction after obstetrical correction with hand only was reported [12, 13]. Reported dystocia due to ventral deviation of fetal head (fetal maldisposition) and its successful management [14]. Reported a case of dystocia due to bilateral shoulder flexion in swamp buffalo and corrected it manually. Dystocia is the one of the major obstetrical problem in buffaloes causing unbearable economic loss to the poor dairy farmers due to treatment cost, death of dam, fetus or both and impaired future fertility and reproductive performance. It is also advised to the dairy farmer that if the first stage of the labor in cows and buffaloes is lasting longer than 6-12 hours and there is no calving, then immediate call to the qualified veterinarians is requisite so that an impending dystocia could be handled in time.

Conclusion

The present case represents rare occurrence of fetal maldisposition due to simultaneous presence of dorso-pubic position and left lateral deviation of the

head resulting in dystocia as well as the birth of a live male fetus even after 13 hours of the rupture of first and second water bags which is an unusual and rare incidence.

Application of research: This case report will be helping the budding veterinarians in dealing the cases of dystocia as well as the farmer's awareness about the veterinary care of the animals during parturition and impending dystocia.

Research Category: Veterinary Gynaecology & Obstetrics.

Acknowledgement / Funding: Authors are thankful to Division of Animal Reproduction, ICAR-Indian Veterinary Research Institute, Izatnagar, Bareilly, Uttar Pradesh 243122, India.

***Research Guide or Chairperson of research: Dr B Kumar**

Institute: ICAR-Indian Veterinary Research Institute, Izatnagar, 243122, India

Research project name or number: MVSc Research

Author's Contributions: All author equally contributed.

Author statement: All authors have participated in the research of this article, and have read, reviewed, agree and approved with the content of the article.

Conflict of Interest: None declared.

Sample Collection: Referral Veterinary Polyclinic

Ethical approval: Ethical approval taken from ICAR-Indian Veterinary Research Institute, Izatnagar, Bareilly, Uttar Pradesh 243122, India.

References

- [1] Purohit G.N. and Mehta J.S. (2006) *Veterinary Practitioner*, 7,31-34.
- [2] Srinivas M., Sreenu M., Lakshmi R.N., Subramanyam K.N. and Prasad V.D. (2007) *Buffalo Bulletin*, 26(2), 40-45.
- [3] Purohit G.N., Kumar P., Solanki K., Shekhar C. and Yadav S.P. (2012) *Veterinary Science Development*, 2(1),e8.31- e8.42.
- [4] Saini A., Pandey A.K., Luthra R.A. and Ghing G. (2015) *Haryana Veterinarian*. 50(2),204-205.
- [5] Kamlesh J., Purohit G.N., Mehta J.S., Choudhary V. and Nirwan L.K. (2015) *Theriogenology Insight*, 5(1),41-45.
- [6] Singla V.K. and Sharma R.D. (1992) *Indian Veterinary Journal*, 69(6),563-564.
- [7] Phogat J.B., Bugalia N.S. and Gupta S.L. (1992) *Indian Journal of Animal Reproduction*, 13,69-70.
- [8] Megahed G.A. (2016) *Journal of Dairy, Veterinary & Animal Research*, 3(5), 00092.
- [9] Sane C.R., Deshpande B.R., Kaikini A.S., Velhankar D.P., Kodagali S.B., Luktuke S.N., Hukeri V.B. and Deopurkar V.L. (1994) In, *A Textbook of Reproduction in Farm Animals*. 2nd ed. Varghese Publishing House.
- [10] Dodamani M.S., Mohteshamuddin K., Awati S.D., Tandle M.K. and Honnapagol S.S. (2010) *Veterinary world*, 3(4),188-190.
- [11] Jainudeen M.R. and Hafez E.S.E. (2006) *Cattle and buffalo reproductive cycles*. In, *Reproduction in Farm Animals*. 7th Edn. Blackwell Publishing Ltd. 159-171.
- [12] Das G. K., Dutt R., Kumar R., Deori S., and Shankar U. (2009) *Buffalo Bulletin*, 28(2),59-60.
- [13] Dutt R., Singh G., Yadav V., Gahalot S.C. and Sharma K. (2018) *Life Sciences Leaflets*, 3(5).
- [14] Perumal P., Vupru K., Khate K. and Chamuah J.K. (2013) *International Journal of Livestock Research*, 3(2),191-192.