



## Case Study

# DYSTOCIA DUE TO DORSAL DEVIATION OF FETAL HEAD ASSOCIATED WITH ANOMALIES IN A MURRAH BUFFALO

RAVI DUTT\*<sup>1</sup>, GYAN SINGH<sup>2</sup>, KARAN SHARMA<sup>1</sup>, VINAY YADAV<sup>1</sup> AND RAM NIWAS<sup>3</sup>

<sup>1</sup>Department of Veterinary Gynaecology and Obstetrics, College of Veterinary Sciences, Lala Lajpat Rai University of Veterinary and Animal Sciences, Hisar, 125004

<sup>2</sup>Department of Veterinary Clinical Complex, College of Veterinary Sciences, Lala Lajpat Rai University of Veterinary and Animal Sciences, Hisar, 125004, India

<sup>3</sup>Department of Veterinary Surgery and Radiology, College of Veterinary Sciences, Lala Lajpat Rai University of Veterinary and Animal Sciences, Hisar, 125004, India

\*Corresponding Author: Email - [raviduttvets@yahoo.co.in](mailto:raviduttvets@yahoo.co.in)

Received: December 01, 2018; Revised: December 11, 2018; Accepted: December 12, 2018; Published: December 15, 2018

**Abstract:** An adult Murrah buffalo at full term in third parity suffering from dystocia was brought to the Veterinary clinics of the university. The fetal fluid was scanty, therefore, postural abnormality of fetal head could not be corrected. Finally, caesarean section through ventro-lateral in her right recumbency was carried out in routine manner and fetus with anomalies of head was delivered.

**Keywords:** Murrah buffalo, Veterinary clinics

**Citation:** Ravi Dutt, *et al.*, (2018) Dystocia Due to Dorsal Deviation of Fetal Head Associated with Anomalies in a Murrah Buffalo. International Journal of Agriculture Sciences, ISSN: 0975-3710 & E-ISSN: 0975-9107, Volume 10, Issue 23, pp.- 7591-7592.

**Copyright:** Copyright©2018 Ravi Dutt, *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 is defined as delayed or difficult to calving, sometimes requiring significant human assistance [1]. In cattle and buffalo, the incidence of dystocia is maximum compared to other farm animals [2]. As per a report, 40.84 percent of dystocia in graded Murrah buffalo are due to fetal cause, among which head deviations were 42.22 percent [3]. Lateral deviation of the head is seen most often in unipara and the prognosis is serious when the fetus is dead and the deviations are due to muscle contractures [4]. The present communication describes a case of dystocia due to dorsal deviation of fetal head, complicated by presence of scanty fetal fluids and contraction of uterus around the dead fetus.

## Case history and clinical observations

A Murrah Buffalo in its 3<sup>rd</sup> parity was presented with the history of a prolonged second stage of labor with forceful abdominal contractions and two limbs protruding from the vulva. This case was already attended by the field Veterinarian 10 hours back but could not succeed and referred it to Veterinary Clinical Complex, Hisar. Animal was recumbent and straining. On per-vaginal examination it was found that both the forelimbs were present in the birth canal and head was unapproachable due to its dorsal deviation. Due to lack of fetal fluid uterus was contracted around the fetus.

## Treatment and discussion

First of all, the animal was administered with 6 ml of 2% of lignocaine hydrochloride in epidural space between sacrum and 1st coccygeal vertebrae. So, after copiously lubricating the birth canal with liquid paraffin, the forelimbs were repelled back into uterine cavity in order to approach the fetal head. Due to absence of fetal fluid, uterine wall was contracted around the body of fetus and abnormal posture could not be corrected. Finally, caesarean section was carried out from the left ventrolateral site parallel to milk vein. Dead fetus was delivered through a 25cm long incision [Fig-1] and immediately after fetal delivery, animal was administered with oxytocin-10ml in one-litre normal saline intravenously, Pheniramine maleate-10 ml intramuscularly and Calcium-magnesium-boro-gluconate 450 ml slow intravenously.

Uterus was sutured with catgut no.3 in routine manner. Muscle layers were sutured in lock stitch suture pattern with catgut no. 3.



Fig-1 Dead fetus delivered by caesarean section



Fig-2 View of abnormal head



Fig-3 Radiographic image of abnormal head showing prognathism and abnormal forehead curvature



Fig-4 Radiographic image of ventrodorsal view of head

Skin was sutured with silk no. 3 using simple interrupted horizontal mattress suture pattern. For post-operative care animal was advised for inj. Cefoperazone sulbactam-4.5gm, inj. metronidazole-3gm, inj. Flunixin meglumine-1gm, inj. Rumeric® (multivitamin)-10ml and inj. Vitamin C-7.5gm for 5 consecutive days. The animal recovered uneventfully. Upon delivery of fetus, it was observed that fetus had prognathism [Fig-2] which refers to abnormal elongation of mandibles. The radiographic examination of fetal head revealed that the mandibles were more curved dorsally and cranial bones were abnormally dome shaped [Fig-3]. Dorsoventrally, the left half of the mandible was abnormally curved towards medial side and fusion of both mandibles was not complete [Fig-4]. Amongst different reasons, the deviation of head and neck of fetus in anterior presentation are most common [5] and may be in any direction [6]. The lateral deviation of head especially in a dead fetus becomes life threatening for the dam due to uterine contractions in inappropriately treated cases [4]. Present case also described about dystocia in Murrah buffalo due to head deviation in dorsal direction accompanied with head anomalies. To confirm the type of head anomalies radiography of fetal head was carried out indicating prognathism. This case was unique in itself because during obstetrical maneuvers the fetal head and neck were not approachable. The reason for dystocia seemed to be traction on both the forelimbs without guiding the fetal head and lack of improper lubrication in the birth canal. This case study suggests timely scientific management of obstetrical cases to avoid caesarean section for better prognosis.

**Application of research:** This case report will be helping the veterinarians or paraveterinarian staff for taking timely corrective measures in obstetrical cases to avoid caesarean section.

**Research Category:** Veterinary Gynaecology & Obstetrics.

**Acknowledgement / Funding:** Authors are thankful to Department of Veterinary Clinical Complex, College of Veterinary Sciences, Lala Lajpat Rai University of Veterinary and Animal Sciences, Hisar, 125004, India.

**\*Research Guide or Chairperson of research: Dr Ravi Dutt**

University: Lala Lajpat Rai University of Veterinary and Animal Sciences, Hisar, 125004

Research project name or number: Research station study

**Author Contributions: All authors equally contributed**

**Author statement:** All authors read, reviewed, agreed and approved the final manuscript

**Conflict of Interest: None declared**

**Sample Collection:** Veterinary Clinical Complex

**Ethical approval:** This article does not contain any studies with human participants or animals performed by any of the authors.

Ethical Committee Approval Number: The case was referred case for treatment

#### References

- [1] Lombard J.E., Garry F.B., Tomlinson S.M. and Garber L.P. (2007) *Journal of Dairy Sciences*, 90, 1751-1760.
- [2] Purohit G.N., Barolia Y., Shekher C. and Kumar P. (2011) *Open Journal of Animal Sciences*, 1, 41-53.
- [3] Srinivas M., Sreenu M., Rani N.L., Naidu K.S. and Prasad V.D. (2007) *Buffalo Bulletin*, 26(2), 40-45.
- [4] 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) *Reproduction in Farm Animals*, 2<sup>nd</sup> edn. Varghese Publishing House, Bombay, India, 97.
- [5] Robert S.J. (1971) *Veterinary Obstetrics and Genital Diseases (Theriogenology)*, 2<sup>nd</sup> edn. CBS Publishers and Distributors, New Delhi, India, 61.
- [6] Das G.K., Dutt R., Kumar R., Deori S. and Shanker U. (2009) *Buffalo Bulletin*, 28(2), 59-60.