

SUCCESSFUL MANAGEMENT OF DYSTOCIA DUE TO RELATIVE OVERSIZED FETUS IN A MURRAH BUFFALO

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ABSTRACT

A Murrah buffalo in her first parity suffering from dystocia due to relative oversized fetus and its successful clinical management following caesarean operation has been reported.

Keywords: *Bubalus bubalis*, buffaloes, dystocia, oversized fetus, Murrah buffalo

INTRODUCTION

Dystocia refers as delayed or difficult calving, sometimes requiring significant human assistance which has a considerable impact on production and future reproduction of dairy animals. It generally has a lower incidence in buffalo but still has a considerable impact on buffalo production (1 to 2%) (Jainudeen, 1986; Kaushik and Mathur, 2005). Dystocia is much more common in primipara than pluripara (Roberts, 1971). Bovines are the most commonly affected species with dystocia, which develops when the birth process is hindered by some physical obstacle or functional defects (Srinivas *et al.*, 2007). Dystocia has been classified into maternal and fetal types (Sloss and

Dufty, 1980). The present communication deals with a report on dystocia due to relative oversized fetus and its therapeutic management in a Murrah buffalo.

CASE HISTORY AND CLINICAL OBSERVATIONS

A four years old Murrah buffalo in her first parity, weighing approximately 350 kg was brought to the Teaching Veterinary Clinical Complex, Faculty of Veterinary Sciences and Animal Husbandry, Sher-e-Kashmir University of Agricultural Sciences and Technology of Jammu, Ranbir Singh Pura, Jammu with the history of continuous straining since last 12 to 14 h. The buffalo was handled earlier by local paravet to deliver the fetus for 3 h without success, after that it was referred to hospital. On general examination buffalo appeared normal and active. The temperature and and respiration rate of the animal was slightly elevated. The water bags were already ruptured and head of dead fetus was completely engaged and hanging outside the vulva (Figure 1). The vulvular lips were congested, edematous and inflamed due to mishandling. Cervix was fully

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Figure 1. Fetal head protruded from the vulva.



Figure 2. Fetus along with amputated head.

dilated but the birth canal was

dry. The fetus was large in size as compared to maternal pelvis. There was tuft of hair on forehead and close observation revealed presence of one inch long horn buds implying that fetus was two month overage. The case was diagnosed as dystocia due to relatively over sized fetus.

TREATMENT AND DISCUSSION

Following caudal epidural anesthesia (7 ml, 2% Lignocaine Hydrochloride), the uterine cavity was adequately lubricated with carboxy methyl cellulose solution (2%). The protruded head of the fetus was amputated at atlanto-occipital joint with the help of sharp knife. Per vaginal examination revealed fetus completely engaged in birth canal owing to its oversize. Looking at size of fetus and the severity of the case it was decided to perform caesarean section which was done by ventral paramedian approach under local analgesia as per Roberts (1971). Dead fetus (Figure 2) was removed which had complete hair coat but unusually long hair on thoracic and abdominal region, further confirming our observation of overage fetus. After caesarean section, the buffalo was treated with an Enrofloxacin, injection Quintas (Intas Pharmaceutical Pvt. Ltd.) 1500 mg once daily for 5 days by I.M route. Fluid therapy with Inj. Intalyte (Intas Pharmaceutical Pvt. Ltd.), 4 liters I.V. infusion for 3 days and Meloxicam, injection Melonex (Intas Pharmaceutical Pvt. Ltd.) 15 ml I.M was given for 5 days. Inj. Mifex, (Novartis India Ltd.) 450 ml (300 ml slow I.V. and 150 ml S.C route) was administered once only to increase the tonicity of muscles. Buffalo recovered uneventful after treatment without any complication during 10

days of observation period.

The most common cause of dystocia in cattle is fetopelvic disproportion. This is most common in heifers when the fetus is of normal size for its breed but the maternal pelvis is not big enough, or the fetus is unusually large and cannot be delivered through a pelvic canal of normal size (Youngquist, 1997; Momont, 2005). Mating between various breeds of cows may result in an increased incidence of dystocia due to fetopelvic disproportion. (Laster *et al.*, 1973; Sane *et al.*, 1994). Cesarean deliveries are required for 89.5% of the parturitions in Belgian Blue cows (Fiems *et al.*, 2001). Oversized fetuses cannot be delivered normally and, therefore, the decision to relieve dystocia either by fetotomy or cesarean section would depend on the condition of the fetus and/or the dam. Grossly oversized fetuses in a narrow birth canal must be removed by cesarean section. An attempt can be made to remove dead oversized fetuses in a relaxed birth canal by fetotomy but as the fetus was completely engaged and there was no space for manipulation, caesarean section was the last resort. There are various reasons for fetal oversize, such as calf birth weight, calf sex, twins, fetal death and emphysema.

REFERENCES

- Fiems, L.O., W. de Campeneere, V. Caelenbergh and C.V. Bougue. 2001. Relationship between dam and calf characteristics with regard to dystocia in Belgian Blue double-muscled cows. *Anim. Sci.*, **72**(2): 389-394. DOI: 10.1017/S1357729800055880
- Jainudeen, M.R. 1986. Reproduction in the water buffalo, p. 443-449. *In* Morrow, D.A. *Current Therapy in Theriogenology*, WB

- Saunders Company, Philadelphia, USA.
- Kaushik, S.K. and A.C. Mathur. 2005. Time of parturition and incidences of calving abnormalities in Murrah buffaloes. *Indian J. Anim. Sci.*, **75**(3): 227-228.
- Laster, D.B., H.A. Glimp, L.V. Cundiff and K.E. Gregory. 1973. Effects of Early Weaning on Postpartum Reproduction of Cows. *J. Anim. Sci.*, **36**(4): 734-740. DOI: 10.2527/jas1973.364734x
- Momont, H. 2005. Bovine reproductive emergencies. *Vet. Clin. N. Am.*, **21**(3): 711-727. DOI: 10.1016/j.cvfa.2005.07.004
- Roberts, S.J. 1971. *Veterinary Obstetrics and Genital Diseases (Theriogenology)*, 2nd ed. C.B.S. Publishers and Distributors, New Delhi, India. 69p.
- Sane, C.R., B.R. Deshpande, A.S. Kakani, D.P. Velhankar, S.B. Kodagali, S.N. Luktuke, V.B. Hukeri and V.L. Deopurkar. 1994. *A Text Book Reproduction in Farm Animals (Theriogenology)* 2nd ed. Varghese Publishing House, Bombay, India.
- Sloss, V. and J.H. Dufty. 1980. *Handbook of Bovine Obstetrics*. Williams and Wilkins, Baltimore, USA. 208p.
- Srinivas, M., M. Sreenu, N.L. Rani, K.S. Naidu and V.D. Prasad. 2007. Studies on dystocia in graded Murrah buffaloes: A retrospective study. *Buffalo Bull.*, **26**(2): 40-45. Available on: <http://ibic.lib.ku.ac.th/e-Bulletin/IBBU200700010.pdf>
- Youngquist, R.S. 1997. Parturition and dystocia. p. 309-324. In Youngquist, R.S. (edn.) *Current Therapy in Large Animal Theriogenology*, W.B. Saunders Co., Philadelphia, USA.