

## DYSTOCIA DUE TO A DICEPHALUS MONSTER FETUS IN A BUFFALO

Pravesh Kumar\*, Amit Sharma, Madhumeet Singh, Pankaj Sood and Purabi Barman

## ABSTRACT

A successful delivery of a dicephalus monster fetus through Caesarean section is recorded.

**Keywords:** dicephalus monster, buffalo, congenital abnormalities

## INTRODUCTION

A monster is a malformed fetus. Fetal anomalies and monstrosities are common cause of dystocia in bovines (Shukla *et al.*, 2007) and are disturbances of development that involve the sexual organs and cause great distortion of the individual (Vegad, 2007). They are usually associated with either with infectious diseases or congenital defects (Arthur *et al.*, 2001) and may or may not interfere with birth (Sharma *et al.*, 2010; Gupta *et al.*, 2011). Abnormal duplication of germinal area in fetus will give rise to congenital fetal abnormalities with partial duplication of body structure (Robert, 2004). Varying degree of fusion occurs; but anterior duplications are more seen in ruminants and swine (Arthur *et al.*, 2001). It is important to know various types of monsters which cannot be removed without Caesarean section most of the time (Gupta *et al.*, 2011; Sharma, 2006).

## Case History and Clinical Observation

A four-year-old indigenous, primiparous buffalo with the history of natural service 308 days before was presented in the Veterinary Hospital Dandaru. The animal was presented with the complaint that in spite of continuous straining for last 6 h after the expulsion of first water bag, there was no progression to the stage of parturition. Per vaginal examination revealed an abnormal fetus with two heads joined at neck in anterior longitudinal presentation, dorso-pubic position with both the fore limbs retained against dorsal border of the vagina. As the fetus was a monster and was in dorso-pubic position, Caesarean section was done.

## Treatment and Discussion

The buffalo was pre-medicated with anti-shock therapy (Inj. dexamethasone 40 mg, i.m total dose), hemostat (Inj. Revici 20 ml, i.m) and local infiltration anesthesia was achieved by using lignocaine HCl. The left paramedian laparohysterotomy was performed after restraining the animal in right lateral recumbancy. The uterus, peritoneum, muscle and skin were sutured in the routine manner. The buffalo was treated with inj. Strepto-Penicillin 2.5 gm bid i.m, inj. meloxicam 15 ml i.m for 5 days. The fluid therapy was done with inj. Ringer's Lactate (4 litres), inj. normal saline (2 litres) by i.v route along with supportive

---

Department of Veterinary Gynaecology and Obstetrics, DGCN, College of Veterinary and Animal Sciences, Palampur, Himachal Pradesh, India, \*E-mail: pk9919@gmail.com



Figure 1. Dicephalus buffalo calf monster.

therapy for 5 days. Antiseptic dressing was done on alternate days using povidone Iodine. The sutures were removed after 10 days of the caesarean section.

The fetus had two fully developed heads on single neck (Figure 1). One of the head was aligned with the cervical vertebrae. Both the heads had separate ears but the pinnae of the medial ears were fused at the base. The neck, thorax, abdomen and limbs were grossly normal. These observations were similar to the earlier findings (Fisher *et al.*, 1986). Dicephalus monsters have been reported in goats (Pandit *et al.*, 1994), buffaloes (Chauhan and Verma, 1995; Raju *et al.*, 2000; Bugalia *et al.*, 2001; Srivastva *et al.*, 2008) and cows (Chandrasekharan *et al.*, 2003; Patil *et al.*, 2004; John Abraham *et al.*, 2007). Embryonic duplications are malformation due to abnormal duplication of the germinal area giving rise to fetuses whose body structures are partially duplicated. The embryonic disk starts to differentiate on the 13<sup>th</sup> day. If the split occurs after day 13, then the twins will share body parts in addition to sharing their chorion and amnion (Finberg, 1994). Conjoined twins may be

caused by any number of factors, being influenced by genetic and environmental conditions. It is presently thought that these factors are responsible for the failure of twins to separate after the 13<sup>th</sup> day after fertilization (Srivastva *et al.*, 2008). Jones and Hunt (1983) stated that many congenital anomalies are essentially unknown; however, the important known causes are prenatal infection with a virus, poisons ingested by mother, vitamin deficiency (A and folic acid), genetic factors and/or combination of these factors.

## REFERENCES

- Arthur, G.H., D.E. Noakes, H. Pearson and T.J. Parkinson, 2001. *Veterinary Reproduction and Obstetrics*, 8<sup>th</sup> ed. W.B. Saunders Co. Ltd. London, England.
- Bugalia, N.S., R.K. Biswas and R.D. Sharma. 2001. Diplopagus sternopagus monster in an Indian water buffalo (*Bubalus bubalis*). *Indian J. Anim. Reprod.*, **22**(2): 102-104.
- Chandrasekharan, K., K. Kumar, M. Selvaraju, P.N. Richard, Jagatheesan and S.R. Kumar.

2003. Dystocia due to dicephalus montomus monster in a crossbred cow. *Indian J. Anim. Reprod.*, **24**(2): 175.
- Chauhan, K.S. and H.K. Verma. 1995. A case of dystocia due to diplopagus monster in buffalo. *Indian J. Anim. Reprod.*, **16**(1): 75.
- Finberg, H.J. 1994. Ultrasound evaluation in multiple gestation. In *Callen's Ultrasonography in Obstetrics and Gynecology*, 3<sup>rd</sup> ed. Harcourt Publishers. 121p.
- Fisher, K.R.S., G.D. Partlow and Walker. 1986. Clinical and anatomical observations of a two-headed lamb. *Anat. Rec.*, **214**(4): 432-440.
- Gupta, V.K., P. Sharma and S.N. Shukla. 2011. Dicephalus monster in a Murrah buffalo. *Indian Vet. J.*, **88**(12): 72-73.
- John Abraham, S. Bihu, V.I. Raj and B. Lakshman. 2007. Dicephalic monstrosity in a heifer. *Indian J. Anim. Reprod.*, **28**(2): 109-111.
- Jones, T.C. and R.D. Hunt. 1983. Veterinary Pathology, 5<sup>th</sup> Ed., Lea and Febiger, Philadelphia, 115p.
- Pandit, R.K., S.K. Pandey and R.G. Aggarwal. 1994. A case of dystocia due to diplopagus monster in goat. *Indian J. Anim. Reprod.*, **15**(1): 82.
- Patil, A.D., N.M. Markandeya, V.B. Sarwade and S.D. Moregaonkar. 2004. Dicephalus monster in a non-descript cow - A case report. *Indian J. Anim. Reprod.*, **25**(2): 161-162.
- Raju, K.G.S., K.S. Rao, V.S.C. Reddy and G.P. Sharma. 2000. Dicephalus- biatlanticus monster in a buffalo. *Indian J. Anim. Reprod.*, **21**(1): 81.
- Robert, S.J. 2004. Veterinary obstetrics and genital diseases. Indian reprints 2004, CBS Publishers and Distributors, Delhi-110032.
- Sharma, A. 2006. Caesarean section in animals under field conditions: A retrospective study of 50 cases. *Indian Vet. J.*, **83**(5): 544-45.
- Sharma, A., S. Sharma and N.K. Vasishta. 2010. A diprosopus buffalo neonate: A case report. *Buffalo Bull.*, **29**(1): 62-64.
- Shukla, S.P., U.K. Garg, A. Pandey, D.P. Dwivedi and S.P. Nema. 2007. Conjoined twin monster in a buffalo. *Indian Vet. J.*, **84**: 630-631.
- Srivastva, S., A. Kumar, S.K. Maurya, A. Singh and V.K. Singh. 2008. A dicephalus monster in Murrah buffalo. *Buffalo Bull.*, **27**(3): 231-232.
- Vegad, J.L. 2007. *Textbook of Veterinary General Pathology*, 2<sup>nd</sup> ed. International Book Distribution Company, Lucknow, UP, India. 544p.