

DYSTOCIA DUE TO CONJOINED TWIN MONSTER IN A COW

S. KUMAR¹, A. K. PANDEY^{*}, R. B. KUSHWAHA¹, U. SHARMA² AND D. K. DWIVEDI³

*Division of Veterinary Gynaecology and Obstetrics
Faculty of Veterinary Sciences and Animal Husbandry
SKUAST-Jammu, R. S. Pura, Jammu-181102 (J & K).*

Received : 02.08.2012

ABSTRACT

Accepted : 27.04.2014

This paper reports a rare case of dystocia due to conjoined twin monster in a cow.

Key words: Conjoined twin monster, Dystocia, Cow.

INTRODUCTION

Conjoined twins arise from a single ovum due to incomplete subdivision of embryonic axis occurring at a relatively later phase of development. Fetal anomalies and monstrosities of various types have been reported in cattle (Roberts, 1971) and dystocia is the common sequelae of conjoined twins. Hancock (1954) and Arthur (1956) reported its occurrence about one in 100,000 bovine births.

CASE HISTORY AND OBSERVATION

A Holstein-Friesian crossbred cow at full term pregnancy was presented to the Veterinary Teaching cum Referral Hospital, Faculty of Veterinary Sciences and Animal Husbandry, R. S. Pura, Jammu. It was reported that animal showed signs of parturition since 12 hrs and the allantochorionic sac had ruptured 8 hrs before. Two fetal legs were visible at the vulva without any progress and the animal was straining intermittently. The case was attempted by a local veterinarian but failed to deliver the fetus. Previous calving history revealed that animal had 4 calvings and the last calving was also normal. Rectal temperature, respiratory rate and pulse rate of the animal were recorded and found within the normal range.

Per vaginal examination revealed a dead fetus in the birth canal which was in posterior longitudinal presentation and right lumbo iliac position. Two hind limbs were protruding out along with tail. To create room, one limb was amputated using a wire fetotome and further exploration revealed monster fetus with multiple limbs. The fetal monster was a conjoined twin with fusion in the region of sternum and anterior abdomen (fig.). It had two normal heads, two necks, two pairs of fore limbs, two pairs of hind limbs, two thoraxes, two trunks and two tails. Both fetus were fused anterior to the umbilical region.

TREATMENT AND DISCUSSION

Caesarean section was performed and the monster fetus was delivered. Four boli of tab Sulfadimidine (5 gm) were placed intra uterine per day for three days. The animal was treated with inj. Meloxicam @ 0.5 mg/kg (i/m) for 3 days, inj. Enrofloxacin @ 5 mg/kg (i/m) for 5 days and antiseptic dressing was done daily with ointment Povidone Iodine (5%), locally for 7 days. Sutures were removed on day 10 post operatively and the animal recovered fully without any complication.

Conjoined twin monsters are non inherited teratologic defects. Twins are monozygotic in origin, due to incomplete division of one embryo into two components, usually at the primitive streak development state, (Noden and Delahunta, 1985). The present case was a typical Siamese twin (Roberts, 1971) as duplication occurred at both cranial and caudal ends. Such abnormal embryonic

^{*}Assistant Professor, Division of Veterinary Gynaecology & Obstetrics; Corresponding author.
E mail: anil_p8@yahoo.com

¹ Assistant Professor, Division of Teaching Veterinary Clinical Complex.

² Associate Professor & Head Division of Division of Veterinary Gynaecology & Obstetrics.

³ Assistant Professor, Division of Veterinary Surgery and Radiology.

duplications resulting in conjoined twins are rare in bovines (Singh and Pandey, 2013). Number of factors being influenced by genetic and environmental conditions may cause development of conjoined twins. It is thought that these factors are responsible for the failure of twins to separate after the 13th day after fertilization (Srivastva *et al.*, 2008). The causes of many congenital anomalies are essentially unknown (Jones and Hunt, 1983); however, the

important known causes are prenatal infection with a virus, poisons ingested by dam, vitamin deficiency (A and folic acid), genetic factors and/or combination of these factors (Sharma *et al.*, 2010). Dystocia due to conjoined twin monsters has been reported earlier in cows (Honnappagol *et al.*, 2005) and in buffaloes (Urankar *et al.*, 1994; Dhami *et al.*, 2000 and Shukla *et al.*, 2011).



Fig. : Conjoined twin monster fetus

REFERENCES

Arthur, G. H. (1956). Conjoined and identical twins. *Vet. Rec.*, **68**: 389.

Dhami, A. J., Panchal, M. T. and Kavani, F. S. (2000). Dystocia due to holo acardius acephalic (Asymmetrical conjoined twin) monster in a buffalo. *Indian J. Anim. Reprod.*, **21**(2): 162-164.

Hancock, J. (1954). Monozygotic twins in cattle. *Advances in Genetics*, **6**: 141.

Honnappagol, S. S., Tandle, M. H. and Ramakrishna, V. (2005). Thoraco abdominopygophagus foetal monster in a non descript cow. *Indian Vet. J.*, **82**: 441.

Jones, T. C. and R. D. Hunt. (1983). *Veterinary Pathology*, 5th edn. Lea and Febiger, Philadelphia. 115p.

Noden, D. M. and Delahunta, A. (1985). *The embryology of domestic animals*. Williams and Wilkins, Baltimore, p. 44-45.

- Roberts, S. J. (1971). *Veterinary Obstetrics and Genital diseases*, 2nd edn. Scientific Book Agency, Lucknow, India.
- Sharma A., Sharma S. and Vasishta N. K. (2010). A diprosopus buffalo neonate: A case report. *Buff. Bulletin.*, **29**(1): 62-64.
- Shukla, S. P. , Nema, S. P. , Pandey, A. K. , Jain, S., Patel, B. R. and Bondade, S. (2011). Dystocia due to a conjoined twin monster in a she buffalo. *Buff. Bulletin.*, **30**(1): 23-24.
- Singh G. and Pandey A. K. (2013). Dystocia due to conjoined twin monsters in murreh Buffaloes. *Haryana Vet.*, **52** : 139-140.
- Srivastava, S., Kumar A., Maurya S. K., Singh A. and Singh V. K. (2008) A dicephalus monster in Murrah buffalo. *Buff. Bulletin.*, **27**(3): 231-232.
- Urankar, R. M., Chhonkar, S. V. and Gangaprai, P. M. (1994). Conjoined twin monstrosity in a buffalo. *Indian J. Anim. Reprod.*, **15**(2): 165.