

DYSTOCIA DUE TO CONJOINED TWIN MONSTER IN A NON DESCRIPT BUFFALO

Bhoopendra Singh^{1,*}, Kaushlendra Pratap Singh² and Rajesh Kumar¹**ABSTRACT**

A rare case of dystocia in a pluriparous nondescript buffalo due to conjoined twin monster was presented at Teaching Veterinary Clinical Complex with the history of full term gestation and labor since 8 h. A dicephalus, tetraophthalmus, tetraotus, tetrabrachius, thoracoabdominopagus conjoined twin monster calf was delivered per-vaginum successfully under epidural anaesthesia.

Keywords: *Bubalus bubalis*, buffaloes, conjoined twin monster

INTRODUCTION

Dystocia due to conjoined twin monster is a rare cause of bovine dystocia with incidence of 0.51% (Bahr and Distle, 2005). Occurrence of monozygotic conjoined twins is about one in one hundred thousand bovine births (Noakes, 2009). Conjoined twin monsters though rare was reported earlier in buffalo (Kumar *et al.*, 2005). These twins have been reported to result from a single ovum and monozygotic. They develop when incomplete separation occurs after the development of

embryonic plate at 8 days. Depending upon the site of fusion or nonseparation, the types of twins may differ (Babu *et al.*, 2000). Twin monsters are characterized by duplication of anterior, posterior or both parts of foetal body and are common in ruminants. This report is a rare case of conjoined Siamese twin monster in a pluriparous buffalo.

HISTORY AND CLINICAL OBSERVATION

A seven years old non descript buffalo in second parity was presented to Teaching Veterinary Clinical Complex, Kumarganj, Faizabad with the history of full term gestation and labour since 8 h after rupture of water bag. Rectal temperature was 102.6°F. Obstetrical examination revealed fully dilated cervix and presence of dead fetus with two head and three limbs in anterior longitudinal presentation. Both fetuses were attached at the thoracic and abdominal region. Hence, the case was diagnosed as conjoined twin monster causing dystocia in buffalo.

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Figure 1. Photograph showing conjoined twin monster causing dystocia in a nondescript buffalo.

TREATMENT AND DISCUSSION

Under caudal epidural anaesthesia with 2% xylocaine hydrochloride, all the three fore limbs were tied with rope and repelled into the uterus. A long obstetrical hook was applied in right inner canthus of a fetus and traction was applied on fetal head and all the three extended fore limbs simultaneously after lubricating birth canal with liquid paraffin to deliver dead twin monster. The fetus possess two normal heads with separate nostrils, eyes and ears, eight legs, two tails and two trunk of bodies joined together. Fetuses were female. Both the fetuses were fully developed and had no evidence of ankylosis, degeneration, maceration or mummification. This monster was a typical Siamese twin as per the classification of Roberts

(1986) in which duplication occurred at the cranial and caudal ends with the middle area remaining single. As per Roberts (1986) the fetus was classified as dicephalus, tetraophthalmus, tetraotus, tetrabrachius, thoraco-abdominopagus conjoined twin monster (Figure 1). After delivery animal was administered with ringer lactate (4 liters), NSS (4 liters) and Dexamethasone (40 mg) intravenously. Injection of Amoxycillin + Dicloxacillin (4 gm), Meloxicam (75mg), Chlorpheniramine maleate (100 mg) and multivitamins with liver extract (10 ml) were administered intramuscularly. Oxytetracyclin bolus (3 gm) was placed in the uterus. Same treatment was continued for 3 days except Dexamethasone. The animal recovered uneventfully.

Simon *et al.* (2009) stated that conjoined

twins were always genetically identical and shared the same sex. According to Noden and Lahunta (1984) conjoined twins were monozygotic and monstrosities arise due to incomplete division of embryo into components usually at the primitive streak during development state. Duplication of cranial part of fetus is more common than that of caudal parts and also duplication can occur at both cranial and caudal ends with the middle area of the monster remaining single (Roberts, 1986). The present case seemed to be a non inherited teratogenic defect of development with early complete duplication of cranial and caudal parts. Incomplete and/or complete twin monster though uncommon, have been observed earlier in cattle (Honnappagol *et al.*, 2005; Ravi Kumar *et al.*, 2012) and buffaloes (Anand *et al.*, 2013; Baddi *et al.*, 2012). A conjoined Siamese twin develops from single ovum and occurs due to non-inherited teratogenic defects caused by various genetic and environmental defects responsible for failure of twins to separate after 13th day post fertilization.

REFERENCES

- Baddi, S.Y., K.H. Gowda, G.T. Naveenkumar and V. Ramkrishna. 2012. *Dicephalus tetrapius* tetrabrachius in buffalo. *Indian Vet. J.*, **89**(12): 83-84.
- Bahr, C. and O. Distle. 2005. Frequency of congenital anomalies in cattle: Results from the practice in comparison with literature. *Deut. Tierärztl. Woch.*, **112**(4): 149-154.
- Babu, R., A. Pierro, L. Spitz, D.P. Drake and E.M. Kiely. 2000. The management of oesophageal atresia in neonates with right-sided aortic arch. *J. Am. Vet. Med. Assoc.*, **35**(1): 56-58. DOI: 10.1016/S0022-3468(00)80013-5
- Honnappagool, S.S., M.H. Tandle and V. Ramkrishna. 2005. Thoraco abdominopygophagus foetal monster in a non-descript cow. *Indian Vet. J.*, **82**: 441.
- Noakes, D.E. 2009. *Veterinary Reproduction and Obstetrics*, 9th ed. Saunders Publishers, England. p. 217.
- Noden, D.M. and A.D. Lahunta. 1984. *Embryology of Domestic Animals Developmental Mechanisms and Malformations*, 1st ed. Williams and Wilkins, Valtimore, London, UK.
- Pandey, A.K., G. Singh, N.S. Bugalia, R.N. Choudhary, S. Kumar and S. Sunder. 2013. Dystocia due to monstrosity of cranial duplication in buffalo. *Indian Vet. J.*, **90**(4): 103-104.
- Roberts, S.J. 1977. *Veterinary Obstetrics and Genital Diseases*, 2nd ed. CBS Publishers and Distributors, Delhi, India. 70p.
- Roberts, S.J. 1986. *Veterinary Obstetrics and Genital Diseases*, 3rd ed. Edwards Brothers. Inc. Ann Arbor, Michigan, USA.
- Ravikumar, K., M. Selvaraju and S. Manoharan. 2012. Dystocia due to “Dicephalus Tetrabrachius Thoracopagus Tetrapus Dicaudatus” monster in a Jersey crossbred cow. *Indian Vet. J.*, **89**(8): 96-97.
- Simon, M.S., B.J. William and T.A. Kannan. 2009. A rare case of conjoined twin monster (Ischiopagus) in a she buffalo. *Indian J. Anim. Reprod.*, **30**: 90-91.