Short Communication

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Dystocia Due to Dicephalus Tetrabrachius Thoracopagus Dipus Dicaudatus Monster in A Murrah Buffalo: A Case Report

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ABSTRACT

A Murrah buffalo suffering from dystocia due to a monster was referred to Veterinary Clinical Complex. On per vaginal examination, two heads and four forelimbs were present in the birth canal. A lot of manipulation was already had been done in the field therefore it was decided to go for caesarean section and a conjoint monster was delivered.

Key words: Congenital defect, Caesarean section, Dystocia, Monster, Murrah.

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INTRODUCTION

Congenital malformations related to genetic reasons represent a hidden danger in animal production even though the genetic selection is being followed for improvement in production level of animals (Albarella *et al*., 2017). The eruption of these congenital malformations in the animal herd has caused a decrease in the pace of the genetic progress. These malformations result in great economic losses due to reduction in the production and reproduction potential of the affected animal and may lead to death of the dam in a significant number of cases. Different foetal anomalies or monstrosities have been recorded in bovines (Noakes *et al*., 2001, Roberts, 1971) and occur sporadically (Noakes *et al*., 2019). Commonly encountered fetal monsters predisposing the animal to dystocia are hydrocephalous, ascetic, or anasarcous foetus and monsters with marked skeletal defects like achondroplasia, campylorrhachis scoliosa, schistosomus reflexus, and perosomus elumbis or conjoined twin fetus. Conjoined twins are mostly of monozygotic origin andfused medially at different parts of the body or craniumin most of the cases (Roberts, 1971). They result from incomplete division of embryonic axis at a relatively later phase of development (Ravikumar *et al*., 2012) and may affect either a single structure or function, part of system or an entire system (Patel *et al*., 2016). Fetotomy offers a good alternative to the caesarean for relieving a fetal monster causing dystocia (Vermunt, 2009). But in the present clinical case the correction of dystocia due to monster was done by caesarean

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Fig. 1: Dicephalus Tetra-brachius Thoracopagus Dipus Dicaudatus Monster

section as the proper space was not available to perform the fetotomy.

CASE HISTORY AND OBSERVATIONS

A seven years old pluriparous Murrah buffalo at full-term was referred to the Veterinary Clinics Complex for unresolved dystocia. Water bags had already ruptured and the animal was straining with unsuccessful delivery attempts. Traction was applied at field level by local vet but in vain. Upon per-vaginal examination, two heads and four forelimbs were found lying in the birth canal. All these observations were collectively suggestive of some kind of fetal monstrosity.

TREATMENT AND DISCUSSION

Taking some fetal monstrosity in consideration, it was decided to relieve dystocia through caesarean section. The caesearean was performed under local infiltration of anesthesia through para-median approach. The conjoint fetal monster was extracted successfully. After delivery, it was found that monster was conjoined twin having two vertebral columns side by side and fused at thorax region, with a shared pelvis i.e. duplication in anterior region. It had two heads (Dicephalus), four forelimbs (Tetrabrachius) two hindlimbs (Dipus) and two tails (dicaudatus). Accordingly, it was named as dicephalus tetrabrachius thoracopagus dipus and dicaudatus monster. Post mortem examination of conjoined twins revealed two hearts with thick ventricular walls, severe lung congestion on both sides, liver had necrotic changes and kidney showed putrefactive changes. However, the animal died during caesarean section.

This monster refers to twins which are fused side by side at the thorax region and share a common pelvis i.e. duplication in anterior region. Dicephalic twins have one trunk, two heads and have four forelimbs. Conjoined twins were previously reported in cattle as well in buffalo. Conjoined twins are monozygotic in origin and develop due to incomplete division of one embryo into two components usually at primitive streak stage (Abraham *et al*., 2007; Ravikumar *et al*., 2012; Singh *et al*., 2020). These are usually non-inherited teratogenic defects of development, like in the present case, having no history of monster previously. Moreover, duplication of cranial portion of fetus is more common than caudal portion (Figure 1).

CONCLUSIONS

The present case was di-cephalus tetra-brachius thoracopagus dipus di-caudatus monster condition with two heads, four forelimbs, two hind limbs and two tails was observed, which is a very rare condition. Such type of monsters may lead economical loss to the farmers as in this case both fetus as well as dam died. Farmer got ir-repairable loss in this case and went four year back in his economic position.

CONFLICT OF INTEREST

None.

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