

*Case Report*

**DYSTOCIA DUE TO A CONJOINED TWIN MONSTER FETUS  
IN A NILI RAVI BUFFALO**

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**Abstract:** A case of dystocia due to a conjoined twin monster fetus with thoracopagus in a Nili Ravi buffalo relieved by emergency cesarean section has been reported.

**Keywords:** Buffalo, Dystocia, Twin monster, Thoracopagus.

## **INTRODUCTION**

Fetal anomalies and monstrosities are common causes of dystocia in bovines (Shukla *et al.*, 2007). Occurrence of dystocia due to conjoined twin monsters has been reported earlier in buffalo (Bhoi, 2009; Jerome *et al.*, 2010; Ganie *et al.*, 2011; Pandey *et al.*, 2012) and in cow (Singh *et al.*, 2011). Conjoined twins are considered as non-inherited teratologic defects (Shukla *et al.*, 2011). The origin of monozygotic conjoined twins which share a single common chorion, placenta, and amniotic sac could be, a) partial splitting of fertilized egg, and/or b) complete separation of fertilized egg, but stem cells of fetus are able to find like-stem cells on the other twin leading to fusion of twins together (Cordero *et al.*, 2005). For the obstetrical management of conjoined twins, delivery by cesarean section is usually undertaken (Whitlock *et al.*, 2008).

## **CASE HISTORY AND OBSERVATIONS**

A full-term dystocia affected Nili Ravi buffalo in its third parity was brought to the Teaching Veterinary Clinical Complex, GADVASU, Ludhiana for treatment. It had a history of straining for the previous 6 -7 h with unsuccessful attempts to deliver the fetus. The water bags had already ruptured. At presentation, both hind limbs of the fetus were hanging outside through vulva. Following complete anamnesis, animal was restrained and epidural anaesthesia was administered (Lignocaine hydrochloride 2%, 7ml) at sacro-coccygeal junction. Per vaginal examination following ample lubrication with sodium carboxy methyl cellulose (1% solution) revealed a twin monster. Hence, it was diagnosed as a case of

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dystocia due to a conjoined twin monster fetus and a decision to relieve it through an emergency cesarean section was undertaken.

### **TREATMENT AND DISCUSSION**

Cesarean section was performed under local infiltration of anaesthesia (Lignocaine hydrochloride 2%, 90 ml) in right lateral recumbency (Paramedian approach) as per technique detailed by Roberts (2004) and a dead conjoined twin monster fetus was delivered (Fig.1). After removal, conjoined twins were subjected to postmortem examination and it was observed that both the fetuses were of female sex and the twin monster had two normal heads, two necks, two pairs of fore and hind limbs with two separate abdominal areas but was joined at thorax (thoracopagus). Post-operative treatment included fluid therapy (Normal saline solution 5 litres, IV), antibiotics, anti-inflammatory cum analgesics, rumenatorics and multivitamins for the next 5 days. Antiseptic dressing of the surgical wound was done on alternate days and skin sutures were removed on the day 14 post-cesarean section.

Conjoined twins are usually monozygotic in origin and due to incomplete division of one embryo into two usually at the primitive streak of developmental stage and in the event they may develop into thoracopagus (Noden and Delahunta, 1985). These might arise due to genetic and environmental factors. It has been reported that bovine twins are usually monozygotic in origin, and are, moreover, due to non-inherited defects (Roberts, 2004). However, such abnormal embryonic duplications, resulting in conjoined twins are rare and are not well documented in buffalo. During relieving the dystocia it is important to know the type of conjoined twin that causing dystocia and the normal vaginal delivery of such types of conjoined twins seems to be difficult due to their enlarged and abnormal size resulting in severe dystocia. The findings of the present case study suggested that performing a cesarean section in buffaloes with dystocia due to fetal monstrosities may be considered as a wise decision to save our time, energy and life of the dam.

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**Fig. 1:** A conjoined buffalo twin monster fetus