

DYSTOCIA DUE TO CONJOINED DICEPHALUS STERNOPAGUS TETRABRACHIUS TETRAPUS DICAUDATUS TWIN MONSTER IN A BUFFALO

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SUMMARY

A rare case of dystocia due to conjoined twin monster dicephalus sternopagus tetrabrachius tetrapus dicaudatus was reported in a Murrah buffalo and was delivered by caesarean section.

Keywords: Buffalo, Dicaudatus, Dicephalus, Dystocia, Sternopagus, Tetrabrachius, Tetrapus

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Dystocia in bovines is most commonly caused by fetal abnormalities and monstrosities. Fetal dystocia is a disorder that arises when a fetus is of irregular size, position, or presentation, making calving difficult (Noakes *et al.*, 2019). Dystocia due to fetal anomalies is much more common in bovines than in other animal species (Dutt *et al.*, 2021). Among fetal causes of dystocia in buffaloes, the incidence of foetal monstrosities ranges from 7.9 to 12.8% (Singla and Sharma, 1992). In dairy animals, dystocia causes unpredictably high economic losses due to calf morbidity and mortality (Bicalho *et al.*, 2007), impaired fertility with decreased milk production, treatment cost and dam mortality (Berry *et al.*, 2007). Conjoined twins are monozygotic and develop after the embryonic plate develops (Whitlock *et al.*, 2008). Fetomaternal disproportion is consistently the most common overall indication for caesarean section, and such conjoint fetuses at the time of parturition necessitate obstetric intervention. The current study presents a unique case of a conjoined twins characterised as “dicephalus sternopagus tetrabrachius tetrapus dicaudatus monster foetus” and its safe delivery by caesarean section in a buffalo.

A 7 years old pluriparous Murrah buffalo at full term was presented with the history of dystocia since 3 hours although the clinical parameters were apparently normal. As the buffalo was previously handled at farmer’s doorstep, fetal head along with its forelimbs were visible (Fig. 2) outside the vulva. On per vaginal examination following proper lubrication and after epidural anaesthesia with 5ml of 2% lignocaine HCl (Xylocaine® 2%, German Remedies), another two forelimbs and contracted uterus around fetus indicated presence of fetal monster and non-feasibility of normal delivery. Therefore, caesarean section was opted to deliver the fetal monster. The surgery was carried out by

restraining the animal in right lateral recumbency through obliqueventero-lateral site under local infiltration with 2% lignocaine HCl (Xylocaine® 2%, German Remedies). Site was prepared aseptically and skin and muscles were incised in routine manner as described by Noakes *et al.* (2019), uterus was exteriorized and incised to retrieve the fetal monster by simultaneously pushing another fetus inside the birth canal after thorough cleaning of fetus and birth canal with mild antiseptic solution. Uterus was washed with a solution of normal saline and povidone iodine and incision was closed in two layers using Cushing followed by Lembert suture pattern with catgut no-2. Peritoneum along with first and second muscle layer were closed by using ford interlocking suture pattern with vicryl no-2 and skin was closed with simple interrupted suture pattern using silk no. 2. Post operatively, the buffalo was treated with inj. oxytocin 40 I.U. (Evatocin®, Neon Laboratories) in 500 ml normal saline i.v. Further treatment included intravenous fluid therapy with Ringer’s lactate and dextrose normal saline for 3 days along with calcium-magnesium-borogluconate 450 ml i.v. (Mifex®, Novartis India) once, inj. tranexamic acid (Texableed®, Vet Mankind) once, inj. flunixin meglumine 15 ml i.m. (Megludyne®, Virbac Animal Health India) o.d., inj. Ceftriaxone and tazobactam 3375 mg b.i.d. (Intacef Tazo®, Intas Pharmaceuticals Ltd.), inj. metronidazole 1500 mL i.v. (Metrogyl®, J B Chemicals and Pharmaceuticals Ltd.), inj. multivitamins 10ml i.m. (Neurokind-Plus Vet®, Vet Mankind). Antiseptic dressing of surgical site was advised for 11 days. Sutures were removed 12 days after caesarean section. Uneventful recovery of buffalo was recorded.

The congenital twin monster (Fig. 1) grossly had two normal heads with normal external organs, the fetuses were conjoined over sternum with four forearms and four hind legs with two tails therefore diagnosed as dicephalus

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Fig.1. Conjoined dicephalus sternopagus tetrabrachius tetrapus dicaudatus twin through C-section

sternopagus tetrabrachius tetrapus dicaudatus twin monster.

Conjoined twins are invariably identical twins of the same sex, and they are most often caused by non-inherited abnormalities can frequently result with severe dystocia (Roberts, 2004). Normal per-vaginal delivery of such types of conjoint twins is difficult due to their enlarged and abnormal size resulting in dystocia. Proper per-vaginal birth of such sorts of conjoint twins is challenging. Dystocia due to a dicephalus thoraco-sternopagus siamese monster and a conjoined twin monster (Singh *et al.*, 2013; Kumar *et al.*, 2018) have been reported as rare case in buffaloes. Caesarean section birth is generally used to handle conjoined twins obstetrically (Dutt *et al.*, 2021; Singh *et al.*, 2013).

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Fig.2. Exteriorisation of fetal monster

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