

Short Communication

DYSTOCIA DUE TO CEPHALO-THORACO-ABDOMINO-PYGOPAGUS MONSTER IN MURRAH BUFFALO

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ABSTRACT: A case of dystocia due to Cephalo-thoraco-abdomino-pygopagus monstrosity condition in a Murrah buffalo was brought to the clinics and the fetus was removed by caesarean section.

Key words: Buffalo, Dystocia, Monstrosity.

Malformations of fetus are due to abnormal duplication of germinal area which gives rise to the fetus with partially duplicated body structures (Roberts 1971). Conjoined twins develop when incomplete separation occurs after the development of the embryonic plate at 8 days and depending upon the site of fusion or non-separation, the types of the conjoined twins may differ (Noden and De Lahunta 1985). It is estimated that approximately 10-15% of congenital structural anomalies are the result of the adverse effect of environmental factors on prenatal development (Gilbert-Barness 2010). Environmental teratogenic pollutants lead to severe birth defects but the underlying biological mechanisms of these developmental abnormalities remain unclear (Haroun 2017). Conjoined twin monsters are characterized by duplication of anterior or posterior or both parts of fetal body and are reported to be more common in ruminants. Nevertheless, anterior duplication is more often observed in ruminants and swine (Hancock 1954). Arthur *et al.* (2001) reported that occurrence of duplication is about one in 1,00,000 of the bovine's births. Normal delivery of fetal monster has been rarely reported. For delivery of fetal monster caesarian section or fetotomy is normally recommended. The present case study discusses about a case of dystocia in Murrah buffalo due to Cephalo-thoraco-abdomino-pygopagus monster condition and reporting of these cases tells the incidences of such type of monstrosities.

Case history and treatment

An adult Murrah buffalo in its 3rd parity was brought to clinics of university with the history of severe straining since 10 hours after the rupture of water bag. Per-vaginal

examination revealed presence of three limbs in the birth canal accompanied with two heads fused laterally to each other indicative of non-feasibility for delivery per vaginum. Finally, caesarian section was decided to be the line of treatment for delivery of fetal monster. The operation was carried out in ventro-lateral approach under local infiltration and caudal epidural anesthesia after restraining the animal in lateral recumbency (Fig. 1). Uterus was exteriorized and fetal monster was removed by obstetrical maneuvers after incising the uterus. Uterus was washed with normal saline and incision was closed in routine manner. Muscle layers and skin were sutured in routine manner with chromic catgut (No. 3) and silk (No. 3). Proper post-operative care of the animal was taken with administration of inj. Cefoperazone sulbactam 4.5 gm I.M, inj. Metronidazole 2500mg in 500ml I.V, inj. Flunixin meglumine 100 mg I.M, inj. Rumeric® (Virbac India, multivitamin) 10 ml I.M. and inj. Vitamin C-7.5 gm I. M. for 5 consecutive days. An uneventfully recovery was recorded.

The fetus comprised of single mouth and two heads fused laterally, single neck and four ears (Fig. 2). Both the twins were male and had two pairs of fore and hind limbs (Fig. 3). Both the twins were fused along the thorax and abdomen (Fig. 4). According to the above configuration of body parts the monster was classified as cephalopagus tetrabrachius thoraco-abdomino-pygopagus tetrascelus. Conjoined twins are non-inherited teratogenic defects (Shukla *et al.* 2007). Their occurrence is assumed to be due to abnormal duplication at primitive streak stage giving rise to fetu, whose body structures are partially but not completely duplicated (Noden and De Lahunta 1985). The

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Fig.1. Caesarean section through ventro-lateral approach.



Fig. 2. Monster delivered by caesarean section.



Fig. 3. Monster with two pair of fore and hind limbs.



Fig. 4. Monster with fusion at head, thorax and abdomen.

present case seems to be a non-inherited teratogenic defect of development, since there was no history of monster birth in the previous calvings. Dystocia due to conjoined twin monsters, though uncommon, has been reported earlier in buffalo (Srivastava *et al.* 2008, Jasmer *et al.* 2016).

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