

DYSTOCIA DUE TO INIODYMOUS CONJOINED TWIN MONSTER FETUS IN A BUFFALO AND ITS REMOVAL BY FETOTOMY

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ABSTRACT

A case of dystocia due to iniodymous conjoined twin monster fetus in a buffalo was reported in the clinics. Fetotomy was performed to relieve the subsequent dystocia.

Keywords: buffalo, *Bubalus bubalis*, dystocia, fetotomy, iniodymous, monster

INTRODUCTION

Fetal anomalies and monstrosities are common causes of dystocia in bovines (Shukla *et al.*, 2007). 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 100,000 of the bovine's births. Though, caesarean section or fetotomy is recommended to relieve this kind of dystocia, nevertheless, the conjoined twin monster fetus in buffaloes has been delivered through caesarean section (Pandey *et al.*, 2013) however, the present case is rare of its kinds which describes the successful per vaginal delivery of iniodymous

conjoined twin monster fetus through fetotomy.

CASE HISTORY AND OBSERVATIONS

A full term Murrah buffalo (OPD no. E/11-383) in its third parity was presented to the Teaching Veterinary Clinical Complex, College of Veterinary Science, LUVAS, Hisar, with history of severe straining for the previous 8 h after the rupture of both water bag. Two fetal legs were protruding from the vulva without any progress in parturition (Figure 1).

Per vaginal examination revealed that the



Figure 1. As case reported.

fetus was in posterior longitudinal presentation, with two hind limbs protruding from the vulva and two more hind limbs were within the uterus in flexed position. Following repulsion of the fetal limbs as far as possible and deeper exploration confirmed the presence of a conjoined twin monster fetus.

TREATMENT AND DISCUSSION

After clinical examination as the case was fresh in condition with adequate space in birth canal, it was decided to perform fetotomy to relieve the dystocia owing to monster fetus. Before the start of fetotomy operation, caudal epidural anaesthesia (2% Lignocain HCl, 7 ml) was given to avoid straining by the animal. Furthermore, antibiotic, NSAID, corticosteroid and intravenous fluid therapy were administered to stabilize the condition of the animal. Through thygeson's fetotome three cuts were made (Figure 2). First and second cuts were made to amputate the both fetuses from lumbar region just behind the last

rib. Then traction was applied on one pair of flexed fore limbs to bring the fetus close to birth canal but it was difficult to deliver the fetus due to its joined heads (from occipital bone in opposite direction) on single neck. Then third cut was made to decollate the heads from neck. After fetotomy traction was applied on one pair of anterior limbs and monster fetus was removed in straightway direction. Routine antibiotic and supportive treatments were advised for five consecutive days. Animal showed uneventful recovery.

Description of the monster fetus

The fetus comprised with two heads (joined together with occipital bones) two pair of fore and hind limbs with two tails. There were two thorax joined together (thoracopagus) and two lines of cervical vertebrae having a common neck covered with skin (Figure 2). The abdomen was separate for both foetuses. Post-mortem examination revealed common neck consist two lines of cervical vertebrae and two esophagus (one for each fetus). Thoracic organs were present as a single fetus, however abdominal organs were normal for both fetuses.

Dicephalic fetus of the present case could be defined as "Iniodymous" (two skulls with fusion at the occipital level; Camon *et al.*, 1992). The monster fetus was classified as "Iniodymous tetrabrachius thoracopagus tetrapus dicaudatus" as per the characteristics defined by Roberts (1986). Twins are monozygotic in origin, and due to incomplete division of one embryo into two components usually at the primitive streak development state.

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

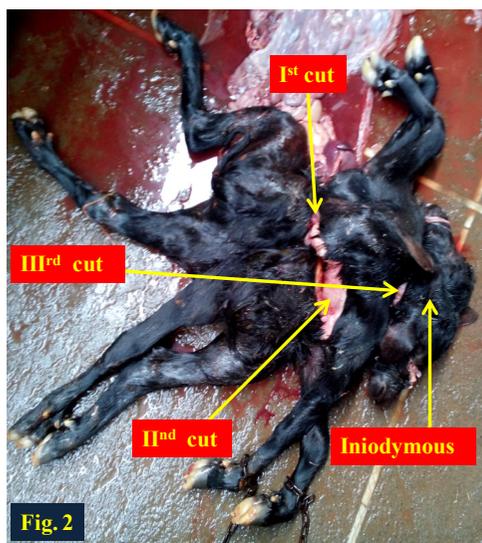


Figure 2. Pervaginal delivery of Iniodymous monster fetus through fetotomy.

conjoined twins may differ (Noden and Delahunta, 1985). Either caesarean section (Shukla *et al.*, 2011) or fetotomy (Pandey and Singh, 2012) is the only way to deliver the conjoined twin fetuses. It is concluded that the delivery of monster fetus could be possible through fetotomy, so that chances of future fertility of the dam can be saved.

Dystocia due to a conjoined twin monster foetus in a female buffalo. *Buffalo Bull.*, **30**: 12-13.

Shukla, S.P., U.K. Garg, A. Pandey, D.P. Dwivedi and S.P. Nema. 2007. Conjoined twin monster in a buffalo. *Indian Vet. J.*, **84**: 630-631.

REFERENCES

- Arthur, G.H., D.E. Noakes, T.J. Parkinson and G.C.W. England. 2001. *Veterinary Reproduction and Obstetrics*, 8th ed. WB Saunders Company, London.
- Camon, J., D. Sabate, J. Verdu, J. Rutllant and C. Lopez-Plana. 1992. Morphology of a dicephalic cat. *Anat. Embryol.*, **185**(1): 45-55.
- Hancock, J. 1954. Monozygotic twins in cattle. *Adv. Genet.*, **6**: 141-181.
- Noden, D.M. and A. De Lahunta. 1985. *The Embryology of Domestic Animal: Development Mechanisms and Malformations*. Williams and Wilkins, Baltimore, USA.
- Pandey, A.K. and G. Singh. 2012. Dystocia due to dicephalus tetrabrachius ischiopagus tripus dicaudatus in buffalo. *The Blue Cross Book*, **27**: 53-54.
- Pandey, A.K., G. Singh, N.S. Bugalia, R.N. Choudhary and S.A. Qaiser. 2013. Atlodymus and derodymus dicephalus monsters in bovine dystocia. *Indian Vet. J.*, **90**(3): 99-100.
- Roberts, S.J. 1986. *Veterinary Obstetrics and Genital Diseases*, 3rd ed. Edward Brothers, Michigan, USA.
- Shukla, S.P., Q. Mudasir and S.P. Nema. 2011.