Dystocia Due to Dicephalus Monster with Brachygnathism in a Jersey Crossbred Cow

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Abstract
A rare case of dicephalus monster is reported and the anatomical structure of the monster is discussed.

Key words: Crossbred Cow, Dystocia, Dicephalus, Monster

Embryonic duplications being the major congenital problem could occur due to abnormal duplication of germinal area which gives rise to the fetus with partially or completely duplicated body structures (Roberts, 1971). Dicephalus is an embryonic duplication of the head resulting from incomplete twinning in animals and is one of the occasionally seen malformations in cattle (Rao et al., 2011). The present communication records a rare case of dicephalus monster in a crossbred cow.

Case History and Observation
A six and half years old Jersey crossbred cow on its third calving was reported with the history of dystocia for the past 5 hours. The owner stated that the water bag ruptured 5 hours back and the animal was unable to deliver the fetus on its own. Attempt was made by a quack to deliver the fetus but was unsuccessful. The general clinical examination revealed that all vital physiological parameters were within the normal range and the animal was having continuous straining.

Per vaginal examination revealed an anteriorly presented fetus in dorso-sacral position and extended fore limbs in the birth canal with laterally deviated head. On careful examination, the foetus was found to have two heads and one neck and was confirmed as double headed monster.

Treatment and Discussion
To reduce the straining, the animal was administered with epidural anesthesia (2% Lignocaine, 5 ml) at sacro-coccygeal space. About 7 liters of luke warm water was infused into the uterus. The birth canal was lubricated with cetrimide cream and the deviation of head was relieved by applying rope snare with gentle traction. The snare was applied on both fore limbs and the dead, male monster fetus was delivered by forced traction. The placenta was also came along with the fetus. The cow was clinically treated with inj. Streptopencillin (2.5 gm, i/m), inj. Meloxicam (150 mg, i/m), inj. Chlorpheniramine maleate (100 mg, i/m), inj. Calcium borogluconate (450 ml, i/v), inj. Oxytocin (30 IU, i/m) and Bol. Pesurea (4, I/ut).

The male monster was well developed and weighed 21.5 kgs. The fetus had two heads (dicephalus) which were united at the base of the head. Each head of the fetus had separate nostrils, two eyes (tetraopthalmus) and two ears. Similarity in development of eyes, nostrils, muzzle and bony structures was observed in both heads except the head positioned on the left side had brachygnathism (Fig.1).

Congenital anomalies can be defined as
structural or functional abnormalities (WHO Fact sheet, 2014). The congenital problems may cause structural abnormality, functional abnormality or both in only one system or different systems (Unver et al. 2007). Finberg (1994) stated that the embryonic disk starts to differentiate on the day 13 and if the split occurs after day 13, the twins may share body parts in addition to sharing their chorion and amnion. The cause for the monstrocity might be due to duplication of the surface ectodermal cells forming neural tissue and craniofacial mesenchyma during primitive streak elongation as reported by Fischer et al. (1986) in lambs.

Summary
Fetal anomalies or monsters commonly causes dystocia in farm animals and is more common in cows. A case of dicephalic monster and its obstetrical management in a Jersey crossbred cow is reported.

References

Bovine Brucellosis Detection by Milk Ring Test (MRT) in Meghalaya

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Abstract
A prevalence study on brucellosis in cattle was conducted from April 2013 to December 2015 in Meghalaya (India) in herd and individual animals. A total of 547 individual animals of different lactations from 74 dairy herds of organized and small private holdings were screened for brucella antibodies using milk ring test (MRT). Incase of individual animals, 25.2% were found positive by milk ring test, and out of 74 dairy herds, 74.3% were found to be positive. The prevalence was highest in 2nd to 4th lactation (32.13%) and least in the 1st lactation group with 6.18%. The study revealed high prevalence of brucellosis in cattle in Meghalaya when screened by milk ring test.

Key words: Brucellosis, Prevalence, Cows, Milk ring test.

The Milk ring test is one of the many serological tests used in detection of brucellosis. The MRT, which detects IgM and IgA antibodies bound to fat globules, may have wide acceptability as it is cost effective, easy to perform and can cover a large population in a short time (Cadmus et al. 2008). Besides, the MRT is considered as an ideal test for detecting infected herds and for diagnosis of brucellosis in individual animals (Noriello, 2004) though it is known from very early studies that false positive reactions may occur in colostrum or milk at the end of the lactation period and from cows suffering from...