BRACHYGNATHIA (PARROT MOUTH) INFERIOR CALF IN A MURRAH BUFFALO

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ABSTRACT

The report documents the delivery of Brachygnathia inferior calf in a graded Murrah buffalo following detorsion.

Keywords: *Bubalus bubalis*, buffaloes, Murrah buffalo, dystocia, torsion, brachygnathia inferior

INTRODUCTION

Various developmental embryo or fetal abnormalities occur in all species of domestic animals. They are disturbance in development of various organs and systems that cause distortion of the individual (Vegad, 2009). Of them, Brachygnathism, popularly referred to as overshot Jaw or parrot mouth, is a cranio-facial defect strongly suspected to be caused by homozygous recessive gene with incomplete penetrance and varying degrees of expression (Whitlock *et al*., 2008). This fetal anomaly is mostly observed in equines, sheep, goat and cattle (Shukla *et al*., 2007) but rare in buffaloes. In view of it, this case reports Brachygnathia inferior calf in a Murrah buffalo.

CASE HISTORY AND OBSERVATIONS

A 3.5 year Murrah buffalo with full term pregnancy in its 1st parity with the history of straining and restlessness from last 12 to 14 h was referred to the Teaching Veterinary Clinical Complex, GADVASU, Ludhiana, Punjab, India. Per-vaginal and per-rectal examination revealed post-cervical right sided uterine torsion of 180^{o}. Palpable fetal parts with adequate fetal fluid were observed with absence of uterine adhesions. Following detorsion, it was noticed that the mandible of calf was much shorter than maxillae. Hence, it was diagnosed as a case of calf with parrot nose (Brachygnathia inferior).

TREATMENT AND DISCUSSION

Detorsion was successfully achieved by Sharma's modified Schaffer's method in 2 rolls followed by recording cervical and fetal status. Cervix was fully dilated but the birth passage was dry and edematous. Fetus was in posterior longitudinal presentation with dorso-sacral position and hindlimbs were in passage. Considering the condition of buffalo, Epidural anaesthesia (5 ml

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of 2% Lignocaine hydrochloride) and per-vaginal lubrication with 1% solution of sodium carboxy methyl cellulose was done. With forced traction, a dead female fetus was delivered out by judicious traction. The fetus was Brachygnathia inferior (Figure 1). It showed mild reflexes on clearing the mucus from nostrils and survived for 30 minutes but died later on. Postoperatively, the buffalo was administered with Inj. NSS (10 litre, I/V), inj. Melonex (200 mg, I/M), Inj. Ceftiofur Na (1gm, I/M) and inj. Oxytocin (50 IU, I/V). The antibiotic and analgesic treatment was repeated for another 4 days. The animal showed uneventful recovery.

The congenital defects are very exceptional as reported in sheep and goat (Narayanan *et al*., 2004), Cattle (Mahajan *et al*., 2000). No comparable observation on torsion with brachygnathism calf in buffalo could be traced in the literature to the best of author knowledge and seems to-be first of its kind. In case of parrot mouth, there is always the associated risk of malnutrition, if the calf survives (Murali *et al*., 2013). In such dental problems, there occurs the slower growth rate due to lack of contact between upper and lower jaw or even death. In sheep, the incidence of Brachygnathia inferior is reported to be 29.5% (Greber *et al*., 2013) and was genetically. Hence, it could be concluded that these types of congenital abnormalities, if based on genetic origin requires specific action, if especially Brachygnathia inferior in animals is concerned. In general, careful selection of breeding stock is to be recommended. In such cases gene testing can be used to eliminate these undesirable mutations so that economic loss to the farmers could be avoided.

Figure 1. Fetus with Brachygnathia (Parrot mouth) inferior.

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