

FETOTOMY MEDIATED MANAGEMENT OF DYSTOCIA IN A BUFFALO

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ABSTRACT

The present case report deals with a rare case of dystocia due to dorso-sacro-iliac right position and left lateral deviation of head and neck of oversized fetus along with its successful management through fetotomy of head in a primiparous buffalo.

Keywords: *Bubalus bubalis*, buffaloes, head fetotomy, dystocia, Murrah graded buffalo, primiparous, per-vaginum delivery

cattle is fetopelvic disproportion which may be the result of calf being too large relative to the size of the maternal pelvis (Noakes, 2009), however, it is less frequent in buffaloes as they are older at first calving, ranging from 36 to 52 months in different breeds (Purohit and Mehta, 2006). Fetal maldispositions such as head deviations and limb flexions serve as the major cause of dystocia in buffalo varying from 45.40 to 69.80% (Srinivas *et al.*, 2007). To handle dystocia, various techniques such as mutations, fetotomy and caesarean section have been used effectively to facilitate the removal of fetus (Sharma *et al.*, 2010).

INTRODUCTION

In bovines, dystocia is most observed and occurs when the birth process is hampered by some physical obstacle or functional defects (Srinivas *et al.*, 2007). Dystocia is affected by several factors such as breed, parity of dam, sex and birth weight of calf, pelvic size of dam, gestation length, nutrition, year, and season of calving (Mee, 2008). The incidence of dystocia in buffaloes was reported to range from 1.80 to 4.47% (Singh *et al.*, 2019). The most common cause of dystocia in primiparous

CASE HISTORY AND CLINICAL OBSERVATIONS

A primiparous Murrah graded buffalo aged about 4 years was presented in clinics with a history of full-term gestation. Animal was showing signs of straining for last 18 h and first water bag was ruptured 8 to 10 h back. Limbs were visible in vulva when the case was presented in clinics. Per vaginal examination revealed a fetus with dorso-sacro-iliac right position and left lateral



Figure 1. Head fetotomy in a buffalo calf.

deviation of head and neck which was preventing the extraction of the fetus. Cervix was completely dilated with mild lubrication. Buffalo was having a normal rectal temperature along with heart and respiration rate.

TREATMENT AND DISCUSSION

The buffalo was pre-medicated with inj. Dexamethasone 28 mg, i.v total dose (Dectin; 20 mL; Instant Pharmaceuticals Ltd.). Lubrication of birth canal was achieved with heavy Liquid Paraffin (approximately 2 litres) which was followed by snaring of hind limbs at fetlock joint. The fetus was rotated to dorso-sacral position by holding hind limbs and left lateral deviation of head was also carried out by adjustment of extremities. However, due to a relatively oversized fetus in relation to maternal pelvis, fixation of fetal head was done with eye hook and fetotomy near atlanto-occipital joint (Figure 1) was carried out to facilitate the removal

of dead calf. The rest of the calf was extracted after forced extraction. The buffalo was treated with Inj. Intacef 4.0 gm (Intas Pharmaceuticals Ltd.), Inj. Meloxicam 0.2 mg/kg body wt. intramuscular (i.m) (Intas Pharmaceuticals Ltd.) for 5 days and Inj. Texableed 5 mg/kg body wt. i.m (Vet Mankind Ltd.). The fluid therapy was done with Inj. Rintose (2 litres), Inj. Normal saline (5 litres) and Inj. Dextrose normal saline (3 litres) by intravenous (i.v) route along with Inj. Mifex 1.5 mL/kg body wt. (Calcium borogluconate; Novartis India Ltd.) slow i.v and supportive therapy (multivitamin supplementation) for 5 days before discharge. No post-partum complications following fetotomy were recorded up to next 3 months.

Gross examination of the fetus revealed a relatively oversized fetus when comparative pelvimetry of buffalo was carried out. The causes of dystocia are generally classified as being maternal or fetal in origin of which fetal dystocia dominates the maternal one in terms of incidence as observed in the present case (Abera *et al.*, 2017). Fetotomy

is considered as one of options for management of dystocia caused due to fetomaternal disproportion as it reduces the fetal size following division or removal of certain parts (Wehrend *et al.*, 2002; Kebede *et al.*, 2017). However, fetotomy possesses certain threats by leading to injuries of maternal reproductive tract as well as it can be exhaustive to the obstetrician also (Kumar *et al.*, 2020). Thus, dystocia is one of the most important obstetrical conditions and requires immediate attention of obstetricians as it causes severe economic losses to dairy farmers by increasing the rate of uterine infections and other post-partum complications (Singh *et al.*, 2019).

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