DYSTOCIA IN A BUFFALO DUE TO HYDROCEPHALIC FETUS: A CASE REPORT

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ABSTRACT

The present report describes a case of dystocia due to congenital hydrocephalic fetus with incomplete dilatation of the cervix in an aborting pluriparous Murrah buffalo in its last trimester of gestation. The buffalo was successfully handled for dystocia with an uneventful recovery.

Keywords: Murrah buffalo, cervix, dystocia, hydrocephalus, pluriparous

INTRODUCTION

Dystocia due to fetal hydrocephalus is reported in all domestic farm animals (Arthur *et al*., 1996) and rarely seen in buffaloes (Kumaresan *et al*., 2003). Congenital hydrocephalus condition has been described in Indian buffaloes by Pandey *et al.*, 2010. Hydrocephalus is an abnormal accumulation of excessive cerebral fluid in cranial cavity (Purohit *et al*., 2012). There are two types of Hydrocephalus: Internal hydrocephalus due to collection of fluid in the cerebral ventricles, and external hydrocephalus due to collection of fluid in the sub arachnoid spaces (Noakes *et al*., 2009).

Internal and external hydrocephalus may also occur in combination (Roberts, 1986). Hydrocephalus is assumed to arise from disturbances in normal circulation of cerebrospinal fluid resulting from its altered production or absorption (Fride, 1975). An autosomal recessive gene has been reported to be linked with hydrocephalus condition (Roberts, 1986) and it may get exacerbated in its manifestation by a coexisting hypo-vitaminosis (Jubb and Kennedy, 1970). The present communication reports successful management of a case of aborting hydrocephalic fetus causing dystocia due to incomplete dilation of cervix in a pluriparous Murrah buffalo.

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CASE HISTORY AND CLINICAL OBSERVATIONS

A Murrah buffalo (about 7 years. of age) in its third parity with 8 months of gestation period was presented to the Government Veterinary Hospital, Bharunda-Kala, Jhunjhunu (District), Rajasthan, India. Buffalo was reported to be straining since the day before it was presented to the clinic and blood tinged discharge was oozing out of vagina. Upon case presentation, various clinical parameters from the animal were measured viz. rectal temperature, pulse rate and respiratory rate. Temperature of the animal was raised and recorded to be 103ºF, mucous membranes were observed to be pink, pre-scapular lymph node size was normal and respiratory rate was depressed. Per-vaginal examination revealed rupture of the water bag with partially opened cervix, the fetus was found to be in anterior presentation with extended fetal extremities in the birth canal.

TREATMENT AND DISCUSSION

The animal was administered with sufficient amounts of intravenous fluids having Normal saline and Ringer's lactate. Then the animal was administered with antibiotics and corticosteroids. The animal was injected with Valethamate Bromide (Inj. Epidosin, TTK Pharma, India) at the dose rate of up to 500 mg I/M, 30 mg Estradiol Valerate (inj. Progynon depot 3 ml I/M) (Purohit *et al.*, 2011) and 25 mg inj. PGF_2 I/M (Shukla *et al*., 2008) in order to make the cervix to dilate and fecilates for the management of dystocia. After 8 h. of medication, once again the animal was examined per vaginal. Cervix was found to be dilated. The fetus had normal birth presentation, position and posture along with enlarged head. Traction was applied on the fetal neck and both forelegs to successfully deliver hydrocephalic male calf. The calf had a high domed forehead with slanting of eyes downwardly (Figure 1), hypotrichosis with less or no hair, microphthalmia

Figure 1. Buffalo fetus with hydrocephalus condition.

having very tiny eyes, and retinal dysplasia were observed after delivery. Both the hind limbs were found to be stiff and ankylosed. The complete placenta was removed immediately. Next day, the buffalo was discharged with the routine prescription of antibiotics and supportive therapy. Follow up of case revealed uneventful recovery. The incidence of bovine hydrocephalus has been reported to be in 1.5 cases per 1000 calvings. However, many cases of hydrocephalus go undetected or are incorrectly reported as abortions or cases of drowning in bovines (Priester *et al*., 1970). Some affected fetuses are either stillborn or many are born prematurely (Leech *et al*., 1978). The condition results in dystocia due to enlarged fetal head which cannot pass through the birth canal. The fetuses are delivered either by excision of head followed by traction or puncture of the head (Bhandari *et al*., 1978) or by caesarian section (Balasubramanian *et al*., 1997), although sometimes the fetus may be delivered normally (Mouli, 1987).

In the present case as animal has not completed its gestation period, so small size fetus and improper dilatation of the birth passage made the fetal delivery possible only by intial dilatation of the cervix and application of traction later on. In cases of abortion, stenosis or atresia of cervix may occur and cervix may not dilate fully, which may be due to hormonal factors that prevent normal relaxation and dilatation of cervix (Roberts, 1971). In present report hormonal intervention worked well resulted in sufficient dilation of birth canal.

A case of calf with hydrocephalus condition and its delivery from the dam was described in the present report.

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