DYSTOCIA DUE TO HYDROCEPHALUS IN A BUFFALO

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Received : 26.05.2011 Accepted : 14.09.2012

ABSTRACT

The present communication puts on a record a case of dystocia due to hydrocephalic fetus and it's per-vaginal delivery through mutational operations in buffalo.

Key words: Buffalo, Dystocia, Hydrocephalus

INTRODUCTION

Hydrocephalus refers to excessive accumulation of fluid in the arachnoid space or in the ventricular system of the cranium thereby leading to the swelling of cranium (Arthur *et al.,* 2001). It is mainly due to abnormal development of fetus during pregnancy, however, hereditary, infectious and nutritional factors can also predispose this condition (Roberts, 1986). This condition has been reported occasionally in ewe, doe, mare and sow whilst it's rarely seen in cattle and buffalo (Dhaliwal *et al.,* 1988). The present report records a unique case of extremely enlarged hydrocephalic fetus and its successful per-vaginum delivery in buffalo.

CASE HISTORY AND OBSERVATION

A full term pregnant pluriparous buffalo was presented at University Veterinary clinics. The animal was sluggish and anorectic. The animal was also showing severe straining since last 4-6 hrs and the water bags were already ruptured before presentation. The clinical parameters viz. temperature, heart and respiratory rates were in normal range. Per-vaginal examination revealed that the cervix was fully dilated with both the forelimbs of the fetus in the birth passage. An extremely enlarged head and excessive accumulation of fluid in it along with loose cranial bones could be palpated. The characteristics of the fetus resembled hydrocephalic fetus.

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TREATMENT AND DISCUSSION

Following epidural anesthesia (6ml, 2% Lignocaine HCl,) and ample lubrication with Carboxy Methyl Cellulose gel (Carmellose Na, WDT, Garbsen, Germany), the skin of fetal cranium was stabbed with guarded knife. The fluid was then drained out from the enlarged cranium by putting pressure on it through fingers. After the evacuation of fluid, the size of the head got reduced and with slight manipulation, the head of the fetus was pulled in to the birth canal. Both the fore limbs were secured with chains and the fetus was delivered with mild traction. Except enlarged head and asymmetry of jaws, rest of the fetus was normal (Fig. 1). Post-obstetrical treatment involved parenteral administration of antibiotics, anti-inflammatory and analgesics along with intra-venous fluid. The animal had uneventful recovery. After draining of hydrocephalic fluid, the radiograph of the skull revealed enlarged frontal and maxillary sinus with underdeveloped lower jaw (Fig. 2).

Hydrocephalic fetus in buffalo could be caused due to many factors. Previous studies have reported autosomal recessive gene to be one of the major etiological factors resulting in hydrocephalic fetus (Sloss and Dufty, 1980). Deficiency of vitamin A may be another potent cause for this condition in buffalo (Arthur *et al.,* 2001). However, in the present case, though the etiology of hydrocephalus could not be ascertained but its vaginal delivery was possible through obstetrical maneuvers.

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Figure 1. The hydrocephalus calf with enlarged cranium (Arrow)

Figure 2 . Radiograph of the hydrocephalic skull depicting enlarged frontal and maxillary sinus with underdeveloped lower jaw (respective arrows).