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Case Report

Hydrocephalic fetus: A rare case of fetal dystocia in a cow

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ABSTRACT

The present communication reports a case of dystocia due to hydrocephalus and its management in cow.

Key words: Cow, Dystocia, Hydrocephalus

Hydrocephalus involves 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's mainly due to abnormal development of fetus during pregnancy, however, hereditary, infectious and nutritional factors can also predispose this condition (Roberts, 1986). The condition has been reported occasionally in ewe, doe, mare and sow. It is rarely seen in cattle and buffalo (Dhaliwal *et. al.*, 1988). The present report records a unique case of hydrocephalic fetus in cattle.

History and Diagnosis

A full term pregnant pleuriparous cow was presented at veterinary clinics, GADVASU, Ludhiana. The animal was 10 years old. As per history of the animal the water bags had ruptured, and the animal was sluggish and anorectic. The animal was also showing severe straining. Per-vaginal examination revealed that the cervix was dilated, with both the forelimbs in the birth passage. An excessive accumulation of fluid in the cranial cavity could be palpated and the cranial bones were lying loose. The case was diagnosed to be of dystocia due to hydrocephalic fetus.

After giving epidural anesthesia, about 6-7 liters of Carboxy Methyl Cellulose (CMC) gel was introduced in to the birth passage in order to lubricate it thoroughly. The head of the fetus was palpated and with the help of guarded knife a stab was given in the skin of cranial cavity. The fluid was then drained from the enlarged cranium. After the evacuation of fluid, the volume 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 slight traction. Except head, rest of 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. Hydrocephalic fetus in cattle 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 cattle (Arthur *et. al.*, 2001). In the present case, there was no previous history of dystocia due to hydrocephalic fetus. Vitamin A deficiency seemed to be most probable cause of hydrocephalus in this case.

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Fig 1. Th

Fig 1. The hydrocephalus calf with enlarged cranium

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